

Tue May 25 14:11:23 2004

us-09-925-179-8.res

US-08-466-163B-8 Sequence 8, Application US/08466163B

Sequence 8, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardiou, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US/08/466,163B
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 8
LENGTH: 453
TYPE: PRT
ORGANISM: Artificial sequence
FEATURE:
OTHER INFORMATION: humanized mab1, version 1 heavy chain

Initial Score = 453
Optimized Score = 453
Significance = 7.64
Residue Identity = 100%
Matches = 453
Mismatch = 0
Conservative Substitutions = 0
Gaps = 0

EVQLVESGGGLVQPGGSLRLS
CAVSGYSITSGYSWMWIRQAPGKLEWVASIT
YDGGSTNYADSVKGRFTISR
EVQLVESGGGLVQPGGSLRLS
CAVSGYSITSGYSWMWIRQAPGKLEWVASIT
YDGGSTNYADSVKGRFTISR

80 90 100 110 120 130 140
DPSKNTFYLMNSLRADTA
VYCARSHYFPGHMFVWQ
GTLVTSASTKGGKPSV
FPLAPSSKSTSGG
DPSKNTFYLMNSLRADTA
VYCARSHYFPGHMFVWQ
GTLVTSASTKGGKPSV
FPLAPSSKSTSGG

150 160 170 180 190 200 210
TAALGCLVKDYFPPFV
TSSWNSGALTSGVHT
TFAVLSGLYSLSV
TVPSSSLGQTQYIC
NVMHKKPSNTK
TAALGCLVKDYFPPFV
TSSWNSGALTSGVHT
TFAVLSGLYSLSV
TVPSSSLGQTQYIC
NVMHKKPSNTK

220 230 240 250 260 270 280
VDKVEPKSCDKTHT
CPAPPELGGPSVFL
FPPKPKDTLMISRT
PEVTCVVVDVSHED
PPEVKFNWYVDG
VDKVEPKSCDKTHT
CPAPPELGGPSVFL
FPPKPKDTLMISRT
PEVTCVVVDVSHED
PPEVKFNWYVDG

290 300 310 320 330 340 350 360
EVHNAKTKPREEQYNS
TYRVSALTTLHQLD
WLNKKEKVKVSNKAL
PAPIETISKAKGQPR
EPQVYTLPPS
EVHNAKTKPREEQYNS
TYRVSALTTLHQLD
WLNKKEKVKVSNKAL
PAPIETISKAKGQPR
EPQVYTLPPS

370 380 390 400 410 420 430
REEMTKNQVSLTCLVK
GFFYPSDIAVEWESN
GQPENNYKTTTPVL
DSDGSFFLYSKLT
VDKSRWQGNVFS
REEMTKNQVSLTCLVK
GFFYPSDIAVEWESN
GQPENNYKTTTPVL
DSDGSFFLYSKLT
VDKSRWQGNVFS

440 450 X
VHRAALNNHYTQKSL
SLSPGK
VHRAALNNHYTQKSL
SLSPGK

Tue

Initial Score = 87
Optimiz = 87
Residue Identity = 69%
Matches = 2
Gaps = 0

X 10 20 30
EVQLVESGGGLVQPGGSLRLS
CAVSGYSIT
EVQLVESGGGLVQPGGSLRLS
CAVSGYSIT

80 90 100
DPSKNTFYLMNSLRADTA
VYCARSHY
DPSKNTFYLMNSLRADTA
VYCARSHY

150 160 170
TAALGCLVKDYFPPFV
TSSWNSGALTSGVHT
TAALGCLVKDYFPPFV
TSSWNSGALTSGVHT

220 230 240 250 260 270 280
VDKVEPKSCDKTHT
CPAPPELGGPSVFL
FPPKPKDTLMISRT
PEVTCVVVDVSHED
PPEVKFNWYVDG
VDKVEPKSCDKTHT
CPAPPELGGPSVFL
FPPKPKDTLMISRT
PEVTCVVVDVSHED
PPEVKFNWYVDG

290 300 310 320 330 340 350 360
EVHNAKTKPREEQYNS
TYRVSALTTLHQLD
WLNKKEKVKVSNKAL
PAPIETISKAKGQPR
EPQVYTLPPS
EVHNAKTKPREEQYNS
TYRVSALTTLHQLD
WLNKKEKVKVSNKAL
PAPIETISKAKGQPR
EPQVYTLPPS

370 380 390 400 410 420 430
REEMTKNQVSLTCLVK
GFFYPSDIAVEWESN
GQPENNYKTTTPVL
DSDGSFFLYSKLT
VDKSRWQGNVFS
REEMTKNQVSLTCLVK
GFFYPSDIAVEWESN
GQPENNYKTTTPVL
DSDGSFFLYSKLT
VDKSRWQGNVFS

440 450 X
VHRAALNNHYTQKSL
SLSPGK
VHRAALNNHYTQKSL
SLSPGK

Sequence 7, Application US/084661
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardiou, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/0
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 7
LENGTH: 137
TYPE: PRT
ORGANISM: Mus musculus

US-08-466-163B-8 Sequence 8, Application US/08466163B

Sequence 8, Application US/08466163B
Patent No. 6329509

GENERAL INFORMATION:

APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64

SEQ ID NO 8

LENGTH: 453

TYPE: PRT

ORGANISM: Artificial sequence

FEATURE:

OTHER INFORMATION: humanized mael, version 1 heavy chain

Initial Score = 453 Optimized Score = 453 Significance = 7.64
Residue Identity = 100% Matches = 453 Mismatches = 0
Gaps = 0 Conservative Substitutions = 0

X 10 20 30 40 50 60 70
EVQLVESGGGLVQPGGSLRLSCAVSGYSITSGYSMNWIRQAPGKGLEWVASITYDGSINYADSVKGRFTISR
|||||
EVQLVESGGGLVQPGGSLRLSCAVSGYSITSGYSMNWIRQAPGKGLEWVASITYDGSINYADSVKGRFTISR
X 10 20 30 40 50 60 70

80 90 100 110 120 130 140
DDSKNTFYQMNSLRAEDTAVYVCARGSHYFGHWFPAVWGQGLTVTVSSASTKKGPSVFFPLAPSSKSTSGG
|||||
DDSKNTFYQMNSLRAEDTAVYVCARGSHYFGHWFPAVWGQGLTVTVSSASTKKGPSVFFPLAPSSKSTSGG
80 90 100 110 120 130 140

150 160 170 180 190 200 210
TAALGCLVKDYFPEPTVSNWNSGALTSGVHTFPAVLQSSGLYSLSSVTVTPSSSLGTQTYICNVNHKPSNTK
|||||
TAALGCLVKDYFPEPTVSNWNSGALTSGVHTFPAVLQSSGLYSLSSVTVTPSSSLGTQTYICNVNHKPSNTK
150 160 170 180 190 200 210

220 230 240 250 260 270 280
VDKVEPKSCDKTHCTCPPCPAPELLGGPSVFLFPPKPKDITLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGV
|||||
VDKVEPKSCDKTHCTCPPCPAPELLGGPSVFLFPPKPKDITLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGV
220 230 240 250 260 270 280

290 300 310 320 330 340 350 360
EVHNAKTPREEQYNSTYRVVSVLTVLHQDWLNGKEYCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPS
|||||
EVHNAKTPREEQYNSTYRVVSVLTVLHQDWLNGKEYCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPS
290 300 310 320 330 340 350 360

370 380 390 400 410 420 430
REEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTPPVLDSDGSFFLYSLKLTVDKSRWQQGNVFSKS
|||||
REEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTPPVLDSDGSFFLYSLKLTVDKSRWQQGNVFSKS
370 380 390 400 410 420 430

440 450 X
VMHEALHNHYTQKSLSLSPGK
|||||
VMHEALHNHYTQKSLSLSPGK
440 450 X

2. US-09-925-179-8 (1-453)
US-08-466-163B-3 Sequence 3, Application US/08466163B

Sequence 3, Application US/08466163B

Patent No. 6329509

GENERAL INFORMATION:

APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64

SEQ ID NO 3

LENGTH: 134

TYPE: PRT

ORGANISM: Mus musculus

Initial Score = 87 Optimized Score = 93 Significance = 1.29
Residue Identity = 69% Matches = 94 Mismatches = 40
Gaps = 2 Conservative Substitutions = 0

X 10 20 30 40 50 60 70
EVQLVESGGGLVQPGGSLRLSCAVSGYSITSGYSMNWIRQAPGKGLEWVASITYDGSINYADSVKGRFTISR
|||||
EVQLVESGGGLVQPGGSLRLSCAVSGYSITSGYSMNWIRQAPGKGLEWVASITYDGSINYADSVKGRFTISR
X 10 20 30 40 50 60 70

80 90 100 110 120 130 140
DDSKNTFYQMNSLRAEDTAVYVCARGSHYFGHWFPAVWGQGLTVTVSSASTKKGPSVFFPLAPSSKSTSGG
|||||
DTSQNOFFLKLNSATAEDTATYVCARGSHYFGHWFPAVWGAGTTTVTVSSA--KTTPPSVYPLAR
80 90 100 110 120 130 X

150 160 170 180
TAALGCLVKDYFPEPTVSNWNSGALTSGVHTFPAVLQSSGLY

3. US-09-925-179-8 (1-453)
US-08-466-163B-7 Sequence 7, Application US/08466163B

Sequence 7, Application US/08466163B

Patent No. 6329509

GENERAL INFORMATION:

APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64

SEQ ID NO 7

LENGTH: 137

TYPE: PRT

ORGANISM: Mus musculus

LENGTH: 11

TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 10 Optimized Score = 10 Significance = -0.05
Residue Identity = 90% Matches = 10 Mismatches = 1
Gaps = 0 Conservative Substitutions = 0

240 250 260 270 280 X 290 X 300
PCPAPELLGGPSVFLFPKPKDTLMISRTPEVTCVVDSHEDPEVKFNWYVDGVEVHNATKPREEQYNST
|||||
YVDGVQVHNAK
X 10

310 320 330 340
YRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIETISK

7. US-09-925-179-8 (1-453)
US-08-466-163B-2 Sequence 28, Application US/08466163B

Sequence 28, Application US/08466163B
Patent No. 6329509

GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 28
LENGTH: 9
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 9 Optimized Score = 9 Significance = -0.07
Residue Identity = 100% Matches = 9 Mismatches = 0
Gaps = 0 Conservative Substitutions = 0

210 220 230 240 250 X 260 X 270
YICNVNHKPSNTKVDKKVEPKSCDKTHTCPPAPPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVDSHES
|||||
KDTLMISRT
X

280 290 300 310
DPEVKFNWYVDGVEVHNATKPREEQYNSTYRVVSVL

8. US-09-925-179-8 (1-453)
US-08-466-163B-1 Sequence 11, Application US/08466163B

Sequence 11, Application US/08466163B
Patent No. 6329509

GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26

PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 11
LENGTH: 9
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 9 Optimized Score = 9 Significance = -0.07
Residue Identity = 100% Matches = 9 Mismatches = 0
Gaps = 0 Conservative Substitutions = 0

210 220 230 240 250 X 260 X 270
YICNVNHKPSNTKVDKKVEPKSCDKTHTCPPAPPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVDSHES
|||||
KDTLMISRT
X

9. US-09-925-179-8 (1-453)
US-08-466-163B-4 Sequence 46, Application US/08466163B

Sequence 46, Application US/08466163B
Patent No. 6329509

GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 46
LENGTH: 10
TYPE: PRT
ORGANISM: Artificial sequence
FEATURE:

OTHER INFORMATION: Mutant sequence substituted in place of IGE Fc(epsilon)3 fragment

Initial Score = 9 Optimized Score = 9 Significance = -0.07
Residue Identity = 90% Matches = 9 Mismatches = 1
Gaps = 0 Conservative Substitutions = 0

270 280 290 300 310 X 320 X 330
VTCVVVDVSHEDPEVKFNWYVDGVEVHNATKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAP
|||||
LHQDWLNGKEY
X 10

340 350 360 370
PIEKTISKAKGQPREPQVYTLPPSREEMTKNQVSLTCL

10. US-09-925-179-8 (1-453)
US-08-466-163B-1 Sequence 17, Application US/08466163B

Sequence 17, Application US/08466163B
Patent No. 6329509

GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.

APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 17
LENGTH: 10
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 9 Optimized Score = 9 Significance = -0.07
Residue Identity = 90% Matches = 9 Mismatches = 1
Gaps = 0 Conservative Substitutions = 0

270 280 290 300 310 320 X 330
VTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAP
LHQDWLDGKE
X 10

340 350 360 370
PIEKTISKAKGQPREPQVYTLPPSREEMTKNQVSLTCL

11. US-09-925-179-8 (1-453)
US-08-466-163B-5 Sequence 50, Application US/08466163B

Sequence 50, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 50
LENGTH: 9
TYPE: PRT
ORGANISM: Artificial sequence
FEATURE:
OTHER INFORMATION: Mutant sequence substituted in place of IgE Fc(epsilon)3 fragment

Initial Score = 8 Optimized Score = 8 Significance = -0.09
Residue Identity = 88% Matches = 8 Mismatches = 1
Gaps = 0 Conservative Substitutions = 0

270 280 290 300 310 320 X 330
TCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAP
LHQDWLDGKE
X

340 350 360 370
IEKTISKAKGQPREPQVYTLPPSREEMTKNQVSLTCL

12. US-09-925-179-8 (1-453)
US-08-466-163B-1 Sequence 15, Application US/08466163B

Sequence 15, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 15
LENGTH: 11
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 8 Optimized Score = 9 Significance = -0.09
Residue Identity = 81% Matches = 9 Mismatches = 2
Gaps = 0 Conservative Substitutions = 0

240 250 260 270 280 X 290 X 300
PCPAPELLGGPSVFLFPFPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNST
YVDGVQVHNQK
X 10

310 320 330 340
YRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISK

13. US-09-925-179-8 (1-453)
US-08-466-163B-4 Sequence 4, Application US/08466163B

Sequence 4, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 4
LENGTH: 124
TYPE: PRT
ORGANISM: Mus musculus

Initial Score = 8 Optimized Score = 19 Significance = -0.09
Residue Identity = 20% Matches = 26 Mismatches = 69
Gaps = 29 Conservative Substitutions = 0

290 300 310 320 330 340 350

ORGANISM: Artificial sequence
FEATURE:
OTHER INFORMATION: Mutant sequence substituted in place of IgE Fc(epsilon)3 fragment

Initial Score = 5 Optimized Score = 5 Significance = -0.14
Residue Identity = 100% Matches = 5 Mismatches = 0
Gaps = 0 Conservative Substitutions = 0

390 400 410 420 430 440 X 450
ESNGQBNYKTPPVLDSDGSPFLYSKLTVDKSRWQQNVFSCVMHEALHNHYTQKSLSLSPGK

|||||
LHNHY
X X

17. US-09-925-179-8 (1-453)
US-08-466-163B-3 Sequence 38, Application US/08466163B

Sequence 38, Application US/08466163B

Patent No. 6329509

GENERAL INFORMATION:

APPLICANT: Jardieu, Paula M.

APPLICANT: Presta, Leonard G.

TITLE OF INVENTION: Immunoglobulin Variants

FILE REFERENCE: P0718P2C1D1

CURRENT APPLICATION NUMBER: US/08/466,163B

CURRENT FILING DATE: 1995-06-06

PRIOR APPLICATION NUMBER: US 08/405,617

PRIOR FILING DATE: 1995-03-15

PRIOR APPLICATION NUMBER: US 08/185,899

PRIOR FILING DATE: 1994-01-26

PRIOR APPLICATION NUMBER: US 07/879,495

PRIOR FILING DATE: 1992-05-07

PRIOR APPLICATION NUMBER: US 07/744,768

PRIOR FILING DATE: 1991-08-14

NUMBER OF SEQ ID NOS: 64

SEQ ID NO 38

LENGTH: 6

TYPE: PRT

ORGANISM: Homo sapiens

Initial Score = 5 Optimized Score = 5 Significance = -0.14
Residue Identity = 83% Matches = 5 Mismatches = 1
Gaps = 0 Conservative Substitutions = 0

250 260 270 280 290 300 X 310
FLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVWSVLTVLHQD

|||||
PREQQY
X X

320 330 340 350
WLNKGKCKVSNKALPAPIEKTISKAKGQPREP

18. US-09-925-179-8 (1-453)
US-08-466-163B-3 Sequence 32, Application US/08466163B

Sequence 32, Application US/08466163B

Patent No. 6329509

GENERAL INFORMATION:

APPLICANT: Jardieu, Paula M.

APPLICANT: Presta, Leonard G.

TITLE OF INVENTION: Immunoglobulin Variants

FILE REFERENCE: P0718P2C1D1

CURRENT APPLICATION NUMBER: US/08/466,163B

CURRENT FILING DATE: 1995-06-06

PRIOR APPLICATION NUMBER: US 08/405,617

PRIOR FILING DATE: 1995-03-15

PRIOR APPLICATION NUMBER: US 08/185,899

PRIOR FILING DATE: 1994-01-26

PRIOR APPLICATION NUMBER: US 07/879,495

PRIOR FILING DATE: 1992-05-07

PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 32

LENGTH: 6

TYPE: PRT

ORGANISM: Homo sapiens

Initial Score = 5 Optimized Score = 5 Significance = -0.14
Residue Identity = 83% Matches = 5 Mismatches = 1
Gaps = 0 Conservative Substitutions = 0

230 240 250 260 270 X 280 290
PKSCDKTHCTCPPELPGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAK

|||||
SHEDPQ
X X

300 310 320
TKPREEQYNSTYRVWSVLTVLHQDWLNKGKEYKCK

19. US-09-925-179-8 (1-453)
US-08-466-163B-2 Sequence 21, Application US/08466163B

Sequence 21, Application US/08466163B

Patent No. 6329509

GENERAL INFORMATION:

APPLICANT: Jardieu, Paula M.

APPLICANT: Presta, Leonard G.

TITLE OF INVENTION: Immunoglobulin Variants

FILE REFERENCE: P0718P2C1D1

CURRENT APPLICATION NUMBER: US/08/466,163B

CURRENT FILING DATE: 1995-06-06

PRIOR APPLICATION NUMBER: US 08/405,617

PRIOR FILING DATE: 1995-03-15

PRIOR APPLICATION NUMBER: US 08/185,899

PRIOR FILING DATE: 1994-01-26

PRIOR APPLICATION NUMBER: US 07/879,495

PRIOR FILING DATE: 1992-05-07

PRIOR APPLICATION NUMBER: US 07/744,768

PRIOR FILING DATE: 1991-08-14

NUMBER OF SEQ ID NOS: 64

SEQ ID NO 21

LENGTH: 6

TYPE: PRT

ORGANISM: Homo sapiens

Initial Score = 5 Optimized Score = 5 Significance = -0.14
Residue Identity = 83% Matches = 5 Mismatches = 1
Gaps = 0 Conservative Substitutions = 0

250 260 270 280 290 300 X 310
FLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVWSVLTVLHQD

|||||
PREQQY
X X

320 330 340 350
WLNKGKCKVSNKALPAPIEKTISKAKGQPREP

20. US-09-925-179-8 (1-453)
US-08-466-163B-1 Sequence 13, Application US/08466163B

Sequence 13, Application US/08466163B

Patent No. 6329509

GENERAL INFORMATION:

APPLICANT: Jardieu, Paula M.

APPLICANT: Presta, Leonard G.

TITLE OF INVENTION: Immunoglobulin Variants

FILE REFERENCE: P0718P2C1D1

CURRENT APPLICATION NUMBER: US/08/466,163B

CURRENT FILING DATE: 1995-06-06
 PRIOR APPLICATION NUMBER: US 08/405,617
 PRIOR FILING DATE: 1995-03-15
 PRIOR APPLICATION NUMBER: US 08/185,899
 PRIOR FILING DATE: 1994-01-26
 PRIOR APPLICATION NUMBER: US 07/879,495
 PRIOR FILING DATE: 1992-05-07
 PRIOR APPLICATION NUMBER: US 07/744,768
 PRIOR FILING DATE: 1991-08-14
 NUMBER OF SEQ ID NOS: 64

```
Initial Score      = 5      Optimized Score = 5      Significance = -0.14
Residue Identity = 83%    Matches      = 5      Mismatches = 1
Gaps              = 0      Conservative Substitutions = 0
```

PKSCDKTHITCPPCAPPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVYDVSHPEDPEVKENWYVDGVEVHNK

TKPREEQYNSTYRVWSVLTVLHODWLNKGKEYKCK
300 310 320

21. US-09-925-179-8 (1-453)
US-08-466-163B-2 Sequence 2, Application US/08466163B

Sequence 2, Application US/084666163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardiou, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64

```

Initial Score      = 5      Optimized Score = 24      Significance = -0.14
Residue Identity  = 25%    Matches          = 34      Mismatches  = 65
Gaps              = 37    Conservative Substitutions = 0

```

130 140 150 160 170 180 190
 KGPSVFPLAPSSKSTGGTAAIGCLVKDYFPEPTVSWNSGALTSVHTTFAVLQSSGLYSLSVTVTPSSS
 DIVLTQS-PASL-----AVS
 X 10

200 210 220 230 240 250 260
LGTQYICNVNHPKSNTKVDKKVEPKSCDKTHTCPPCPAPRLGGPSVFLPFPKP-----KDTLMIS
|||
LGRATII---SCKAS-QSDV--YDGDSYNNWYQQKPGQPPLLIIYAASYLGSELPARFSGSGGTDFTLNHH
|||

RTPE--VTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPRREEQYNSTYRVVSVLTVLHODWLNKGEVKYCKVS

```

      |          |||||          |          |          |
PVEEDAATATFCQSHEDP-----YTFG-----AGTKLEIK
      90          100          110

      340      350
NKALPAPIEKTITSAIKGPR

```

22. US-09-925-179-8 (1-453)
US-08-466-163B-6 Sequence 60, Application US/08466163B

Sequence 60, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
PRIOR FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64

```
Initial Score      = 4  Optimized Score = 4  Significance = -0.16
Residue Identity = 100%  Matches      = 4  Mismatches  = 0
Gaps              = 0    Conservative Substitutions = 0
```

300 310 320 330 340 350 360
 REQNSTYRVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSREEMTKNQV
 ||||
 QPRE
 X X X

370 380 390 400
SLTCLVKGFYPSDIAVEWESNGOPENNYKTTTP

23. US-09-925-179-8 (1-453)
US-08-466-163B-5 Sequence 56, Application US/08466163B

Sequence 56, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1d1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 56
LENGTH: 4

TYPE: PRT
ORGANISM: Artificial sequence
FEATURE:
OTHER INFORMATION: Mutant sequence substituted in place of IgE Fc(epsilon)3 fragment

Initial Score = 4 Optimized Score = 4 Significance = -0.16
Residue Identity = 100% Matches = 4 Mismatches = 0
Gaps = 0 Conservative Substitutions = 0

290 300 310 320 330 340 350
DGEVHNKTKPREEQNSTYRVSVLTVLHQDWLNGKEYCKVSNKALPAPIEKTISKAKGQPREPQVYTL
|||||
APIE
X X

360 370 380
PPSREEMTKNQVSLTCLVKGFYPSDIAVEWES

24. US-09-925-179-8 (1-453)
US-08-466-163B-1 Sequence 19, Application US/08466163B

Sequence 19, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:

APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
PRIOR FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 19

LENGTH: 4
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 4 Optimized Score = 4 Significance = -0.16
Residue Identity = 100% Matches = 4 Mismatches = 0
Gaps = 0 Conservative Substitutions = 0

290 300 310 320 330 340 350
DGEVHNKTKPREEQNSTYRVSVLTVLHQDWLNGKEYCKVSNKALPAPIEKTISKAKGQPREPQVYTL
|||||
APIE
X X

360 370 380
PPSREEMTKNQVSLTCLVKGFYPSDIAVEWES

25. US-09-925-179-8 (1-453)
US-08-466-163B-3 Sequence 31, Application US/08466163B

Sequence 31, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:

APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
PRIOR FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15

PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 31

LENGTH: 6
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 4 Optimized Score = 4 Significance = -0.16
Residue Identity = 66% Matches = 4 Mismatches = 2
Gaps = 0 Conservative Substitutions = 0

10 20 30 40 50 60 70
EVQLVESGGGLVQPGGSLRLSCAIVGYSITSGYSWNWIRQAPKGLEWVASITYDGSITNYADSVKGRFTISR
|||||
APSKGT
X X

80 90
DDSKNTFYLMNSLRAEDTAVYYC

26. US-09-925-179-8 (1-453)
US-08-466-163B-1 Sequence 12, Application US/08466163B

Sequence 12, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:

APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
PRIOR FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 12

LENGTH: 6
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 4 Optimized Score = 4 Significance = -0.16
Residue Identity = 66% Matches = 4 Mismatches = 2
Gaps = 0 Conservative Substitutions = 0

10 20 30 40 50 60 70
EVQLVESGGGLVQPGGSLRLSCAIVGYSITSGYSWNWIRQAPKGLEWVASITYDGSITNYADSVKGRFTISR
|||||
APSKGT
X X

80 90
DDSKNTFYLMNSLRAEDTAVYYC

27. US-09-925-179-8 (1-453)
US-08-466-163B-5 Sequence 52, Application US/08466163B

Sequence 52, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.

APPLICANT: Presta, Leonard G.
 TITLE OF INVENTION: Immunoglobulin Variants
 FILE REFERENCE: P0718P2C1D1
 CURRENT APPLICATION NUMBER: US/08/466,163B
 CURRENT FILING DATE: 1995-06-06
 PRIOR APPLICATION NUMBER: US 08/405,617
 PRIOR FILING DATE: 1995-03-15
 PRIOR APPLICATION NUMBER: US 08/185,899
 PRIOR FILING DATE: 1994-01-26
 PRIOR APPLICATION NUMBER: US 07/879,495
 PRIOR FILING DATE: 1992-05-07
 PRIOR APPLICATION NUMBER: US 07/744,768
 PRIOR FILING DATE: 1991-08-14
 NUMBER OF SEQ ID NOS: 64
 SEQ ID NO 52
 LENGTH: 4
 TYPE: PRT
 ORGANISM: Artificial sequence
 FEATURE:
 OTHER INFORMATION: Mutant sequence substituted in place of Ige Fc(epsilon)3 fragment
 Initial Score = 3 Optimized Score = 3 Significance = -0.17
 Residue Identity = 75% Matches = 3 Mismatches = 1
 Gaps = 0 Conservative Substitutions = 0
 280 290 300 310 320 X 330 340
 DVSHEDPEVKFNWYVDGVEVHNKTKPREEQNSTYRVVSVLTVHLQDWLNKGKEYCKVSNKALPAPIEKTI
 ||||
 DGKE
 X X
 350 360 370
 SKAKGQPREPQVYTLPPSREEMTKNQVSLTCL
 28. US-09-925-179-8 (1-453)
 US-08-466-163B-2 Sequence 26, Application US/08466163B
 Sequence 26, Application US/08466163B
 Patent No. 6329509
 GENERAL INFORMATION:
 APPLICANT: Presta, Leonard G.
 TITLE OF INVENTION: Immunoglobulin Variants
 FILE REFERENCE: P0718P2C1D1
 CURRENT APPLICATION NUMBER: US/08/466,163B
 CURRENT FILING DATE: 1995-06-06
 PRIOR APPLICATION NUMBER: US 08/405,617
 PRIOR FILING DATE: 1995-03-15
 PRIOR APPLICATION NUMBER: US 08/185,899
 PRIOR FILING DATE: 1994-01-26
 PRIOR APPLICATION NUMBER: US 07/879,495
 PRIOR FILING DATE: 1992-05-07
 PRIOR APPLICATION NUMBER: US 07/744,768
 PRIOR FILING DATE: 1991-08-14
 NUMBER OF SEQ ID NOS: 64
 SEQ ID NO 26
 LENGTH: 4
 TYPE: PRT
 ORGANISM: Mus musculus
 Initial Score = 3 Optimized Score = 3 Significance = -0.17
 Residue Identity = 75% Matches = 3 Mismatches = 1
 Gaps = 0 Conservative Substitutions = 0
 10 20 30 40 50 X X 60 70
 LVESGGGLVQPGGSLRLSCA VSGYSITSGYSWNWIRQAPGKGLEWVASITYDGSTNYADSVKGRFTISRDDS
 ||||
 YDGD
 X X
 80 90 100
 KNTFYLQWNSLR AEDTAVYYCARGSHYFGHWH
 29. US-09-925-179-8 (1-453)
 US-08-466-163B-5 Sequence 54, Application US/08466163B
 Sequence 54, Application US/08466163B
 Patent No. 6329509
 GENERAL INFORMATION:
 APPLICANT: Presta, Leonard G.
 TITLE OF INVENTION: Immunoglobulin Variants
 FILE REFERENCE: P0718P2C1D1
 CURRENT APPLICATION NUMBER: US/08/466,163B
 CURRENT FILING DATE: 1995-06-06
 PRIOR APPLICATION NUMBER: US 08/405,617
 PRIOR FILING DATE: 1995-03-15
 PRIOR APPLICATION NUMBER: US 08/185,899
 PRIOR FILING DATE: 1994-01-26
 PRIOR APPLICATION NUMBER: US 07/879,495
 PRIOR FILING DATE: 1992-05-07
 PRIOR APPLICATION NUMBER: US 07/744,768
 PRIOR FILING DATE: 1991-08-14
 NUMBER OF SEQ ID NOS: 64
 SEQ ID NO 54
 LENGTH: 5
 TYPE: PRT
 ORGANISM: Artificial sequence
 FEATURE:
 OTHER INFORMATION: Mutant sequence substituted in place of Ige Fc(epsilon)3 fragment
 Initial Score = 3 Optimized Score = 3 Significance = -0.17
 Residue Identity = 60% Matches = 3 Mismatches = 2
 Gaps = 0 Conservative Substitutions = 0
 10 20 X 30 40 50 60 70
 EVQLVESGGGLVQPGGSLRLSCA VSGYSITSGYSWNWIRQAPGKGLEWVASITYDGSTNYADSVKGRFTISR
 ||||
 ACAVA
 X X
 30. US-09-925-179-8 (1-453)
 US-08-466-163B-2 Sequence 23, Application US/08466163B
 Sequence 23, Application US/08466163B
 Patent No. 6329509
 GENERAL INFORMATION:
 APPLICANT: Presta, Leonard G.
 TITLE OF INVENTION: Immunoglobulin Variants
 FILE REFERENCE: P0718P2C1D1
 CURRENT APPLICATION NUMBER: US/08/466,163B
 CURRENT FILING DATE: 1995-06-06
 PRIOR APPLICATION NUMBER: US 08/405,617
 PRIOR FILING DATE: 1995-03-15
 PRIOR APPLICATION NUMBER: US 08/185,899
 PRIOR FILING DATE: 1994-01-26
 PRIOR APPLICATION NUMBER: US 07/879,495
 PRIOR FILING DATE: 1992-05-07
 PRIOR APPLICATION NUMBER: US 07/744,768
 PRIOR FILING DATE: 1991-08-14
 NUMBER OF SEQ ID NOS: 64
 SEQ ID NO 23
 LENGTH: 5
 TYPE: PRT
 ORGANISM: Artificial sequence
 FEATURE:
 OTHER INFORMATION: Modified IgG1-derived sequence
 Initial Score = 3 Optimized Score = 3 Significance = -0.17

Residue Identity = 60% Matches = 3 Mismatches = 2
Gaps = 0 Conservative Substitutions = 0
10 20 30 40 50 60 70
EVQLVESGGGLVQPGGSLRLSCAVSGYSITSGYSWNWIRQAPGKGLEWVASITYDGSTNYADSVKGRFTISR
ACAVA
X X
DDSDDS

31. US-09-925-179-8 (1-453)
US-08-466-163B-3 Sequence 33, Application US/08466163B

Sequence 33, Application US/08466163B
Patent No. 6329509

GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 33
LENGTH: 11
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 3 Optimized Score = 3 Significance = -0.17
Residue Identity = 27% Matches = 3 Mismatches = 8
Gaps = 0 Conservative Substitutions = 0

160 170 180 190 200 X 220
LVKDYFPEPTVTSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVTPSSSLGTQTYICNVNHHKPSNTKVDKKVE
SRASGKPVNHS
X 10

230 240 250 260
PKSCDKTHTCPPCPAPPELLGGPSVFLFPPKPKDTLMISR

32. US-09-925-179-8 (1-453)
US-08-466-163B-1 Sequence 14, Application US/08466163B

Sequence 14, Application US/08466163B
Patent No. 6329509

GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14

NUMBER OF SEQ ID NOS: 64
SEQ ID NO 14
LENGTH: 11
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 3 Optimized Score = 3 Significance = -0.17
Residue Identity = 27% Matches = 3 Mismatches = 8
Gaps = 0 Conservative Substitutions = 0

160 170 180 190 200 X 220
LVKDYFPEPTVTSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVTPSSSLGTQTYICNVNHHKPSNTKVDKKVE
SRASGKPVNHS
X 10

230 240 250 260
PKSCDKTHTCPPCPAPPELLGGPSVFLFPPKPKDTLMISR

33. US-09-925-179-8 (1-453)
US-08-466-163B-5 Sequence 59, Application US/08466163B

Sequence 59, Application US/08466163B
Patent No. 6329509

GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 59
LENGTH: 4
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 2 Optimized Score = 2 Significance = -0.19
Residue Identity = 50% Matches = 2 Mismatches = 2
Gaps = 0 Conservative Substitutions = 0

300 310 320 330 340 350 X 360 370
EEQYNSTYRVSVSLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSREEMTKNQVS
PRAA
X X

380 390 400
LTCLVKGFYPSDIAVEWESNGQPENNYKTTTP

34. US-09-925-179-8 (1-453)
US-08-466-163B-5 Sequence 55, Application US/08466163B

Sequence 55, Application US/08466163B
Patent No. 6329509

GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617

PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 55
LENGTH: 4
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 2 Optimized Score = 2 Significance = -0.19
Residue Identity = 50% Matches = 2 Mismatches = 2
Gaps = 0 Conservative Substitutions = 0

40 50 60 70 80 90 100
WIRQAPGKLEWVASITYDGTNYADSVKGRFTISRDDSKNTFYLMNSLR AEDTAVYYCARGSHYFGHHWF
||
RALM
X X

110 120 130 140
AVWQGTLVTVSSASTKGKGPSVFPLAPSSKS

35. US-09-925-179-8 (1-453)
US-08-466-163B-4 Sequence 48, Application US/08466163B

Sequence 48, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 48
LENGTH: 4
TYPE: PRT
ORGANISM: Artificial sequence
FEATURE:
OTHER INFORMATION: Mutant sequence substituted in place of Ige Fc(epsilon)3 fragment

Initial Score = 2 Optimized Score = 2 Significance = -0.19
Residue Identity = 50% Matches = 2 Mismatches = 2
Gaps = 0 Conservative Substitutions = 0

120 130 140 150 160 170 180
LVTVSSASTKGKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPTVSMNSGALTSGVHTFPAVLQSSGLYS
||
AGAA
X X

190 200 210
LSSVVTVPSSSLGTQTYICNVNHKPSNTKVDK

36. US-09-925-179-8 (1-453)
US-08-466-163B-3 Sequence 30, Application US/08466163B

Sequence 30, Application US/08466163B

Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 30
LENGTH: 4
TYPE: PRT
ORGANISM: Artificial sequence
FEATURE:
OTHER INFORMATION: Mutant Ige Fc(epsilon)3 sequence fragment

Initial Score = 2 Optimized Score = 2 Significance = -0.19
Residue Identity = 50% Matches = 2 Mismatches = 2
Gaps = 0 Conservative Substitutions = 0

270 280 290 300 310 320 330
CVVVDVSHEDPEVKFNWYVDGVEVHNAKTRPEEQYNSTYRVSVLTVLHQDWLNGKEYCKCKVSNKALPAPI
||
QDLH
X X

340 350 360 370
EKTISKAKGQPREPQVYTLPPSREEMTKNQVS

37. US-09-925-179-8 (1-453)
US-08-466-163B-2 Sequence 29, Application US/08466163B

Sequence 29, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 29
LENGTH: 4
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 2 Optimized Score = 2 Significance = -0.19
Residue Identity = 50% Matches = 2 Mismatches = 2
Gaps = 0 Conservative Substitutions = 0

200 210 220 230 240 250 260
SSSLGTQTYICNVNHKPSNTKVDKKVEPKSCDKTHCTCPAPELGGPSVFLFPPKPKDTLMISRTPEVTC
||
FDLF
X X

Gaps = 0 Conservative Substitutions = 0
 290 300 310 320 330 340 350
 DGVEVHNKTPREEQYNSTYRVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTL
 ||
 AAAAA
 X X

360 370 380 390
 PPSREEMTKNQVSLTCLVKGFYPSDIAVEWESN
 40. US-09-925-179-8 (1-453)
 US-08-466-163B-6 Sequence 63, Application US/08466163B

Sequence 63, Application US/08466163B
 Patent No. 6329509
 GENERAL INFORMATION:
 APPLICANT: Jardieu, Paula M.
 APPLICANT: Presta, Leonard G.
 TITLE OF INVENTION: Immunoglobulin Variants
 FILE REFERENCE: P0718P2C1D1
 CURRENT APPLICATION NUMBER: US/08/466,163B
 CURRENT FILING DATE: 1995-06-06
 PRIOR APPLICATION NUMBER: US 08/405,617
 PRIOR FILING DATE: 1995-03-15
 PRIOR APPLICATION NUMBER: US 08/185,899
 PRIOR FILING DATE: 1994-01-26
 PRIOR APPLICATION NUMBER: US 07/879,495
 PRIOR FILING DATE: 1992-05-07
 PRIOR APPLICATION NUMBER: US 07/744,768
 PRIOR FILING DATE: 1991-08-14
 NUMBER OF SEQ ID NOS: 64
 SEQ ID NO 63
 LENGTH: 5
 TYPE: PRT
 ORGANISM: Homo sapiens

Initial Score = 2 Optimized Score = 2 Significance = -0.19
 Residue Identity = 50% Matches = 2 Mismatches = 2
 Gaps = 0 Conservative Substitutions = 0
 400 410 420 430 440 450 X
 TPPVLDSGSPFLYSKLTVDKSRWQQGNVFCSCVMHEALHNHYTQKSLSLSPGK
 ||
 SPSQT
 X X

41. US-09-925-179-8 (1-453)
 US-08-466-163B-5 Sequence 53, Application US/08466163B

Sequence 53, Application US/08466163B
 Patent No. 6329509
 GENERAL INFORMATION:
 APPLICANT: Jardieu, Paula M.
 APPLICANT: Presta, Leonard G.
 TITLE OF INVENTION: Immunoglobulin Variants
 FILE REFERENCE: P0718P2C1D1
 CURRENT APPLICATION NUMBER: US/08/466,163B
 CURRENT FILING DATE: 1995-06-06
 PRIOR APPLICATION NUMBER: US 08/405,617
 PRIOR FILING DATE: 1995-03-15
 PRIOR APPLICATION NUMBER: US 08/185,899
 PRIOR FILING DATE: 1994-01-26
 PRIOR APPLICATION NUMBER: US 07/879,495
 PRIOR FILING DATE: 1992-05-07
 PRIOR APPLICATION NUMBER: US 07/744,768
 PRIOR FILING DATE: 1991-08-14
 NUMBER OF SEQ ID NOS: 64
 SEQ ID NO 53
 LENGTH: 5
 TYPE: PRT
 ORGANISM: Homo sapiens

270 280 290
 VVVDVSHEDPEVKFNWYVDGVEVHNKTKPRE
 38. US-09-925-179-8 (1-453)
 US-08-466-163B-1 Sequence 18, Application US/08466163B

Sequence 18, Application US/08466163B
 Patent No. 6329509
 GENERAL INFORMATION:
 APPLICANT: Jardieu, Paula M.
 APPLICANT: Presta, Leonard G.
 TITLE OF INVENTION: Immunoglobulin Variants
 FILE REFERENCE: P0718P2C1D1
 CURRENT APPLICATION NUMBER: US/08/466,163B
 CURRENT FILING DATE: 1995-06-06
 PRIOR APPLICATION NUMBER: US 08/405,617
 PRIOR FILING DATE: 1995-03-15
 PRIOR APPLICATION NUMBER: US 08/185,899
 PRIOR FILING DATE: 1994-01-26
 PRIOR APPLICATION NUMBER: US 07/879,495
 PRIOR FILING DATE: 1992-05-07
 PRIOR APPLICATION NUMBER: US 07/744,768
 PRIOR FILING DATE: 1991-08-14
 NUMBER OF SEQ ID NOS: 64
 SEQ ID NO 18
 LENGTH: 4
 TYPE: PRT
 ORGANISM: Homo sapiens

Initial Score = 2 Optimized Score = 2 Significance = -0.19
 Residue Identity = 50% Matches = 2 Mismatches = 2
 Gaps = 0 Conservative Substitutions = 0

40 50 60 70 80 90 100
 WIRQAPGKLEWVASITYDGSTNYADSVKGRFTISRDSDKNTFYLQMNSLRRAEDTAVYICARGSHYFGHWHF
 ||
 RALM
 X X
 110 120 130 140
 AVWGQGLTVTVSSASTKGKGPSVFPLPSSKS

39. US-09-925-179-8 (1-453)
 US-08-466-163B-6 Sequence 64, Application US/08466163B

Sequence 64, Application US/08466163B
 Patent No. 6329509
 GENERAL INFORMATION:
 APPLICANT: Jardieu, Paula M.
 APPLICANT: Presta, Leonard G.
 TITLE OF INVENTION: Immunoglobulin Variants
 FILE REFERENCE: P0718P2C1D1
 CURRENT APPLICATION NUMBER: US/08/466,163B
 CURRENT FILING DATE: 1995-06-06
 PRIOR APPLICATION NUMBER: US 08/405,617
 PRIOR FILING DATE: 1995-03-15
 PRIOR APPLICATION NUMBER: US 08/185,899
 PRIOR FILING DATE: 1994-01-26
 PRIOR APPLICATION NUMBER: US 07/879,495
 PRIOR FILING DATE: 1992-05-07
 PRIOR APPLICATION NUMBER: US 07/744,768
 PRIOR FILING DATE: 1991-08-14
 NUMBER OF SEQ ID NOS: 64
 SEQ ID NO 64
 LENGTH: 5
 TYPE: PRT
 ORGANISM: Homo sapiens

Initial Score = 2 Optimized Score = 2 Significance = -0.19
 Residue Identity = 40% Matches = 2 Mismatches = 3

ORGANISM: Homo sapiens

Initial Score = 2 Optimized Score = 2 Significance = -0.19
Residue Identity = 40% Matches = 2 Mismatches = 3
Gaps = 0 Conservative Substitutions = 0

DTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYK

QCRVT
X X

CKVSNKALPAPIEKTISKAKGQPREPQVYTLPP

42. US-09-925-179-8 (1-453)
US-08-466-163B-2 Sequence 22, Application US/08466163B

Sequence 22, Application US/08466163B
Patent No. 6329509

GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 22

LENGTH: 5
TYPE: PRT

ORGANISM: Homo sapiens

Initial Score = 2 Optimized Score = 2 Significance = -0.19
Residue Identity = 40% Matches = 2 Mismatches = 3
Gaps = 0 Conservative Substitutions = 0

DTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYK

QCRVT
X X

CKVSNKALPAPIEKTISKAKGQPREPQVYTLPP

43. US-09-925-179-8 (1-453)
US-08-466-163B-6 Sequence 61, Application US/08466163B

Sequence 61, Application US/08466163B
Patent No. 6329509

GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495

PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 61
LENGTH: 6
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 2 Optimized Score = 2 Significance = -0.19
Residue Identity = 33% Matches = 2 Mismatches = 4
Gaps = 0 Conservative Substitutions = 0

ISRDSDKNTFYLMNSLRAEDTAVYYCARGSHYFGHWFAVWGQGLTVTVSSASTKGKGPSVFPLAPSSKST

ASPSQT
X X

SGGTAALGCLVKDYFPEPTVSWNSGALTSGVHT

44. US-09-925-179-8 (1-453)
US-08-466-163B-4 Sequence 44, Application US/08466163B

Sequence 44, Application US/08466163B
Patent No. 6329509

GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 44

LENGTH: 6
TYPE: PRT

ORGANISM: Artificial sequence

FEATURE:
OTHER INFORMATION: Mutant sequence substituted in place of IgE Fc(epsilon)3 fragment

Initial Score = 2 Optimized Score = 2 Significance = -0.19
Residue Identity = 33% Matches = 2 Mismatches = 4
Gaps = 0 Conservative Substitutions = 0

CARGSHYFGHWFAVWGQGLTVTVSSASTKGKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPTVSWNSG

AAEAQA
X X

ALTSGVHTFPAVLQSSGLYSLSSVTVTPSSSLGT

45. US-09-925-179-8 (1-453)
US-08-466-163B-4 Sequence 43, Application US/08466163B

Sequence 43, Application US/08466163B
Patent No. 6329509

GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.

TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 43
LENGTH: 6
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 2 Optimized Score = 3 Significance = -0.19
Residue Identity = 50% Matches = 3 Mismatches = 3
Gaps = 0 Conservative Substitutions = 0

| | | | | | | | |
|--|-----|-----|-----|-----|--------|-----|-----|
| 280 | 290 | 300 | 310 | 320 | X | 330 | 340 |
| SHEDPEVKFNWYVDGVEVHNKTKPREEQYNSTYRVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISK | | | | | | | |
| | | | | | | | |
| | | | | | KEEKQR | | |
| | | | | | X | | X |

350 360 370
AKGQPREPQVYTLPPSREEMTKNQVSLTCLVKGF

46. US-09-925-179-8 (1-453)
US-08-466-163B-4 Sequence 42, Application US/08466163B

Sequence 42, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 42
LENGTH: 6
TYPE: PRT
ORGANISM: Artificial sequence
FEATURE:

OTHER INFORMATION: Mutant sequence substituted in place of Ige Fc(epsilon)3 fragment

Initial Score = 2 Optimized Score = 2 Significance = -0.19
Residue Identity = 33% Matches = 2 Mismatches = 4
Gaps = 0 Conservative Substitutions = 0

| | | | | | | | | |
|--|-----|-----|-----|-----|-----|--------|-----|-----|
| 280 | 290 | 300 | 310 | 320 | 330 | X | 340 | 350 |
| NWYVDGVEVHNKTKPREEQYNSTYRVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQ | | | | | | | | |
| | | | | | | | | |
| | | | | | | KAEAAQ | | |
| | | | | | | X | | X |

360 370 380
VYTLPPSREEMTKNQVSLTCLVKGFYPSDIAVEW

47. US-09-925-179-8 (1-453)
US-08-466-163B-4 Sequence 41, Application US/08466163B

Sequence 41, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 41
LENGTH: 6
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 2 Optimized Score = 3 Significance = -0.19
Residue Identity = 50% Matches = 3 Mismatches = 3
Gaps = 0 Conservative Substitutions = 0

| | | | | | | | |
|--|-----|-----|-----|-----|--------|-----|-----|
| 280 | 290 | 300 | 310 | 320 | X | 330 | 340 |
| SHEDPEVKFNWYVDGVEVHNKTKPREEQYNSTYRVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISK | | | | | | | |
| | | | | | | | |
| | | | | | KEEKQR | | |
| | | | | | X | | X |

350 360 370
AKGQPREPQVYTLPPSREEMTKNQVSLTCLVKGF

48. US-09-925-179-8 (1-453)
US-08-466-163B-4 Sequence 40, Application US/08466163B

Sequence 40, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 40
LENGTH: 6
TYPE: PRT
ORGANISM: Artificial sequence
FEATURE:

OTHER INFORMATION: Mutant sequence substituted in place of Ige Fc(epsilon)3 fragment

Initial Score = 2 Optimized Score = 3 Significance = -0.19
Residue Identity = 50% Matches = 3 Mismatches = 3
Gaps = 0 Conservative Substitutions = 0

40 50 60 70 80 90 X 100
IRQAPGKLEWVASITYDGSNTYADSVKGRFTISRDDSKNTFYLQMSLRAEDTAVYYCARGSHYFGHWHFA
|||
AEAKAR
X X
110 120 130 140
VWGQGLTVTVSSASTKGKGPSVFPLAPSSKSTSG

49. US-09-925-179-8 (1-453)
US-08-466-163B-3 Sequence 39, Application US/08466163B

Sequence 39, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 39
LENGTH: 6
TYPE: PRT
ORGANISM: Homo sapeins

Initial Score = 2 Optimized Score = 3 Significance = -0.19
Residue Identity = 50% Matches = 3 Mismatches = 3
Gaps = 0 Conservative Substitutions = 0
280 290 300 310 320 X 330 340
SHEDPEVKFNWYDGVGVHNAKTKPREEQNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISK
|||
KEEKQR
X X
350 360 370
AKGQPREPQVYTLPPSREEMTKNQVSLTCLVKGF

50. US-09-925-179-8 (1-453)
US-08-466-163B-3 Sequence 37, Application US/08466163B

Sequence 37, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 37
LENGTH: 6

TYPE: PRT
ORGANISM: Homo sapiens
Initial Score = 2 Optimized Score = 3 Significance = -0.19
Residue Identity = 50% Matches = 3 Mismatches = 3
Gaps = 0 Conservative Substitutions = 0
280 290 300 310 320 X 330 340
SHEDPEVKFNWYDGVGVHNAKTKPREEQNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISK
|||
KEEKQR
X X
350 360 370
AKGQPREPQVYTLPPSREEMTKNQVSLTCLVKGF

51. US-09-925-179-8 (1-453)
US-08-466-163B-3 Sequence 36, Application US/08466163B

Sequence 36, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 36
LENGTH: 6
TYPE: PRT
ORGANISM: Artificial sequence
FEATURE:
OTHER INFORMATION: Mutant Ige Fc(epsilon)3 sequence fragment

Initial Score = 2 Optimized Score = 3 Significance = -0.19
Residue Identity = 50% Matches = 3 Mismatches = 3
Gaps = 0 Conservative Substitutions = 0
100 110 120 130 140 X 150 160
YCARGSHYFGHWHFAVWGQGLTVTVSSASTKGKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNS
|||
AAAAAG
X X
170 180 190 200
GALTSGVHTFPAVLQSSGLYSLSSVTVTSPSSSLG

52. US-09-925-179-8 (1-453)
US-08-466-163B-3 Sequence 35, Application US/08466163B

Sequence 35, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15

PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 35
LENGTH: 6
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 2 Optimized Score = 2 Significance = -0.19
Residue Identity = 33% Matches = 2 Mismatches = 4
Gaps = 0 Conservative Substitutions = 0

| | | | | | | | | |
|--|-----|-----|-----|-----|-----|--------|-----|-----|
| 310 | 320 | 330 | 340 | 350 | 360 | X | 370 | 380 |
| SVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSREEMTKNQVSLTCLVKGFYPS | | | | | | | | |
| | | | | | | | | |
| | | | | | | SRASGK | | |
| | | | | | | X | | |
| | | | | | | X | | |

390 400 410
DIAVESNGQPENNYKTTPPVLDSDGSFFLYSK

53. US-09-925-179-8 (1-453)
US-08-466-163B-2 Sequence 20, Application US/08466163B

Sequence 20, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 20
LENGTH: 6
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 2 Optimized Score = 3 Significance = -0.19
Residue Identity = 50% Matches = 3 Mismatches = 3
Gaps = 0 Conservative Substitutions = 0

| | | | | | | | |
|--|-----|-----|-----|-----|--------|-----|-----|
| 280 | 290 | 300 | 310 | 320 | X | 330 | 340 |
| SHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISK | | | | | | | |
| | | | | | | | |
| | | | | | KEEKQR | | |
| | | | | | X | | |

350 360 370
AKGQPREPQVYTLPPSREEMTKNQVSLTCLVKGF

54. US-09-925-179-8 (1-453)
US-08-466-163B-5 Sequence 58, Application US/08466163B

Sequence 58, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.

APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 58
LENGTH: 8
TYPE: PRT
ORGANISM: Artificial sequence
FEATURE:
OTHER INFORMATION: Mutant sequence substituted in place of IgE Fc(epsilon) e fragment

Initial Score = 2 Optimized Score = 2 Significance = -0.19
Residue Identity = 25% Matches = 2 Mismatches = 6
Gaps = 0 Conservative Substitutions = 0

| | | | | | | | |
|---|-----|-----|-----|-----|----------|-----|-----|
| 100 | 110 | 120 | 130 | 140 | X | 150 | 160 |
| YYCARGSHYFGHWFPAWGQGLTVTVSSASTKKGPSVFPFLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWN | | | | | | | |
| | | | | | | | |
| | | | | | AAAWLAAA | | |
| | | | | | X | | |

170 180 190 200
SGALTSGVHTFPAVLQSSGLYSLSSVVTVPSSSLGT

55. US-09-925-179-8 (1-453)
US-08-466-163B-5 Sequence 57, Application US/08466163B

Sequence 57, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 57
LENGTH: 8
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 2 Optimized Score = 3 Significance = -0.19
Residue Identity = 44% Matches = 4 Mismatches = 4
Gaps = 1 Conservative Substitutions = 0

| | | | | | | | |
|--|-----|-----|-----|-----|-----------|-----|---|
| 400 | 410 | 420 | 430 | 440 | X | 450 | X |
| ENNYKTTPPVLDSGDSFFLYSKLITVDKSRWQGNVFCSCVMHEALHNHYTQKSLSLSPGK | | | | | | | |
| | | | | | | | |
| | | | | | QK-HWLSDR | | |
| | | | | | X | | |

56. US-09-925-179-8 (1-453)

AAAWLAAA X
X X

170 180 190 200
SGALTSGVHTFPVAVLQSSGLYSLSSVTVVPSSSLGT

APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1d1

FILE REFERENCE: PU/IBP2CIDI
CURRENT APPLICATION NUMBER: US/08/466.163B

CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405 617

PRIOR FILING DATE: 1995-03-15

PRIOR FILING DATE: 1994-01-26

PRIOR FILING DATE: 1992-05-07

PRIOR FILING DATE: 1991-08-14
PRIOR APPLICATION NUMBER: US 0//144,168

NUMBER OF SEQ ID NOS: 64
SEQ ID NO 37

LENGTH: 8

ORGANISM: *Homo sapiens*

```

PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 24
  LENGTH: 8
  TYPE: PRT
  ORGANISM: Homo sapiens

Initial Score      = 2      Optimized Score = 3      Significance = -0.19
Residue Identity  = 44%    Matches      = 4      Mismatches = 4
Gaps              = 1      Conservative Substitutions = 0

```

SVFLFPPKPR
|||
FDLFIRKS
X X

US-09-925-179-B (I-453)
US-08-466-163B-2 Sequence 25, Application US/08466163B

Patent No. 6329509

APPLICANT: VARIQUE, Paula M.
APPLICANT: Presta, Leonard G.

TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1

CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06

PRIOR APPLICATION NUMBER: US 08/405,617

PRIOR APPLICATION NUMBER: US 08/185,899

PRIOR FILING DATE: 1994-01-28
 PRIOR APPLICATION NUMBER: US 07/879,495

PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744 768

PRIOR FILING DATE: 1991-08-14

SEQ ID NO 25

TYPE: PRT

ORGANISM: Artificial sequence
FEATURE:

OTHER INFORMATION: Modified IgG1-derived sequence

```

LENGTH: 8
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 2 Optimized Score = 3 Significance = -0.19
Positive Identity = 37% Matches = 3 Mismatches = 5

```

| | | | | | | | | |
|-------------------|---|-----|-----------------|---|---|--------------|---|-------|
| Initial Score | = | 2 | Optimized Score | = | 3 | Significance | = | -0.19 |
| Positive Identity | = | 37% | Matches | = | 3 | Mismatches | = | 5 |

Gaps = 0 Conservative Substitutions = 0
200 210 220 230 240 X 250 X 260
SSSLGTQTYICNVNHNKPSNTKVDKKVEPKSCDKTHTCPAPPELLGGPSVFLFPPKPKDITLMISRTEVTC
FDLFIKRS
X X
270 280 290 300
VVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYN

60. US-09-925-179-8 (1-453)
US-08-466-163B-4 Sequence 49, Application US/08466163B

Sequence 49, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 49
LENGTH: 9
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 2 Optimized Score = 2 Significance = -0.19
Residue Identity = 22% Matches = 2 Mismatches = 7
Gaps = 0 Conservative Substitutions = 0

SCAVSGYSITSGYSWNWIRQAPGKLEWASITYDGSTNYADSVKGRFTISRDDSKNTFYLQWNSLRADTA
TRDWIEGET
X X
100 110 120 130 140 150 160 170 180 190 200
VYYCARGSHYFGHWHFAVWGQGLTVTVSSASTKGKGP

61. US-09-925-179-8 (1-453)
US-08-466-163B-4 Sequence 45, Application US/08466163B

Sequence 45, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64

SEQ ID NO 45
LENGTH: 10
TYPE: PRT
ORGANISM: Homo sapiens
Initial Score = 2 Optimized Score = 2 Significance = -0.19
Residue Identity = 20% Matches = 2 Mismatches = 8
Gaps = 0 Conservative Substitutions = 0
100 110 120 130 140 X 150 X 160
YYCARGSHYFGHWHFAVWGQGLTVTVSSASTKGKGPSVFLAPSSKSTSGGTAALGCLVKDYFPEPTVSWN
GTRDWIEGET
X X

170 180 190 200
SGALTSGVHTFPAVLQSSGLYSLSSVTVTPSSSLGTQT

62. US-09-925-179-8 (1-453)
US-08-466-163B-1 Sequence 16, Application US/08466163B

Sequence 16, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 16
LENGTH: 10
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 2 Optimized Score = 2 Significance = -0.19
Residue Identity = 20% Matches = 2 Mismatches = 8
Gaps = 0 Conservative Substitutions = 0

100 110 120 130 140 X 150 X 160
YYCARGSHYFGHWHFAVWGQGLTVTVSSASTKGKGPSVFLAPSSKSTSGGTAALGCLVKDYFPEPTVSWN
GTRDWIEGET
X X

170 180 190 200
SGALTSGVHTFPAVLQSSGLYSLSSVTVTPSSSLGTQT

1. US-09-925-179-9 (1-218)
US-08-466-163B-9 Sequence 9, Application US/08466163B
Sequence 9, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 9
LENGTH: 218
TYPE: PRT
ORGANISM: Artificial sequence
FEATURE:
OTHER INFORMATION: humanized mae11, version 1, light chain
Initial Score = 218 Optimized Score = 218 Significance = 6.86
Residue Identity = 100% Matches = 218 Mismatches = 0
Gaps = 0 Conservative Substitutions = 0
X 10 20 30 40 50 60 70
DIQLTQSPSSLSASVGDRTTITCRASQSDYDGDSDYNNWYQQKPKAPKLLIYAASYLESGVPSRFRSGSGG
|||||
DIQLTQSPSSLSASVGDRTTITCRASQSDYDGDSDYNNWYQQKPKAPKLLIYAASYLESGVPSRFRSGSGG
X 10 20 30 40 50 60 70
TDFTLTISLQPEDFATYYCQOSHEDPYTFGGTKVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFY
|||||
TDFTLTISLQPEDFATYYCQOSHEDPYTFGGTKVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFY
80 90 100 110 120 130 140
PREAKVQWKVDNALQSGNSQESVTEQDSKDSTYSLSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRG
|||||
PREAKVQWKVDNALQSGNSQESVTEQDSKDSTYSLSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRG
150 160 170 180 190 200 210
X
EC
||
EC
X
2. US-09-925-179-9 (1-218)
US-08-466-163B-2 Sequence 2, Application US/08466163B
Sequence 2, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26

PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 2
LENGTH: 111
TYPE: PRT
ORGANISM: Mus musculus
Initial Score = 85 Optimized Score = 85 Significance = 2.49
Residue Identity = 76% Matches = 85 Mismatches = 26
Gaps = 0 Conservative Substitutions = 0
X 10 20 30 40 50 60 70
DIQLTQSPSSLSASVGDRTTITCRASQSDYDGDSDYNNWYQQKPKAPKLLIYAASYLESGVPSRFRSGSGG
|||||
DIQLTQSPSSLSASVGDRTTITCRASQSDYDGDSDYNNWYQQKPKAPKLLIYAASYLESGVPSRFRSGSGG
X 10 20 30 40 50 60 70
TDFTLTISLQPEDFATYYCQOSHEDPYTFGGTKVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFY
|||||
TDFTLTISLQPEDFATYYCQOSHEDPYTFGGTKVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFY
80 90 100 110 120 130 140
PREAKVQWKVDNALQSGNSQESVTEQDSKDSTYSLSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRG
|||||
PREAKVQWKVDNALQSGNSQESVTEQDSKDSTYSLSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRG
150 160 170 180 190 200 210
X
EC
||
EC
X
3. US-09-925-179-9 (1-218)
US-08-466-163B-6 Sequence 6, Application US/08466163B
Sequence 6, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 6
LENGTH: 106
TYPE: PRT
ORGANISM: Mus musculus
Initial Score = 83 Optimized Score = 83 Significance = 2.43
Residue Identity = 78% Matches = 83 Mismatches = 23
Gaps = 0 Conservative Substitutions = 0
X 10 20 30 40 50 60 70
DIQLTQSPSSLSASVGDRTTITCRASQSDYDGDSDYNNWYQQKPKAPKLLIYAASYLESGVPSRFRSGSGG
|||||
DIQLTQSPSSLSASVGDRTTITCRASQSDYDGDSDYNNWYQQKPKAPKLLIYAASYLESGVPSRFRSGSGG
X 10 20 30 40 50 60 70
TDFTLTISLQPEDFATYYCQOSHEDPYTFGGTKVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFY
|||||
TDFTLTISLQPEDFATYYCQOSHEDPYTFGGTKVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFY
80 90 100 110 120 130 140
PREAKVQWKVDNALQSGNSQESVTEQDSKDSTYSLSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRG
|||||
PREAKVQWKVDNALQSGNSQESVTEQDSKDSTYSLSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRG
150 160 170 180 190 200 210
X
EC
||
EC
X

PREAKVQWKVDN

4. US-09-925-179-9 (1-218)
US-08-466-163B-4 Sequence 4, Application US/08466163B

Sequence 4, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 4
LENGTH: 124
TYPE: PRT
ORGANISM: Mus musculus

Initial Score = 42 Optimized Score = 80 Significance = 1.08
Residue Identity = 64% Matches = 82 Mismatches = 41
Gaps = 5 Conservative Substitutions = 0

```
X      10      20      30      40      50      60      70
DIQLTQSPSSLSASVGDRTVITCRASQSDYDGDSDYNNWYQKPKAPKLLIYAASYLESGVPSRFSGSG
|||||
DIVMTQSKFMSTSVGDRVSVTCASQNV-----SSNVAWYQKPKQSPKALIYSASTRYSGVDPDRFTGSGSG
X      10      20      30      40      50      60      70
TDFLTITSLQPEDFATYYCQSHEDP-YTFGQGTKEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNF
|||||
TDFLTITSNVQSEDLAEYFCQQYYTYPLTYFGGKLEIKRADAAPTVSIFPPSTR
70      80      90      100      110      120      130      140
YPREAKVQWKVDNALQSGNSQESVTEQDSKDSY
```

5. US-09-925-179-9 (1-218)
US-08-466-163B-8 Sequence 8, Application US/08466163B

Sequence 8, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 8
LENGTH: 453
TYPE: PRT

ORGANISM: Artificial sequence

FEATURE:

OTHER INFORMATION: humanized maell, version 1 heavy chain

Initial Score = 11 Optimized Score = 62 Significance = 0.07
Residue Identity = 32% Matches = 76 Mismatches = 131
Gaps = 30 Conservative Substitutions = 0

```
X      10      20      30      40      50      60
DIQLTQSPSSLSASVGDRTVITCRASQSDYDGDSDYNNWYQKPKK---APKLLIYAAS--YLESGVPSRF-
|||||
EVQLVESGGGL-VQPGGSLRLSCAAGSITSGYS-WNWIRAPKGLGWVASITYDGSNTYADS-VKGRFT
X      10      20      30      40      50      60
70      80      90      100      110      120
-SGSGSGTDFLTITSLQPEDFATYYC-QQSH-----EDPYTFGQGTKEIKRTV-----AAPSVFIFPPS
|||||
ISRDDSNTFYIQMNSLRAEDTAVYYCARGSHYFGHWHFVWGQGLV----TVSSASTKKGKPSVFPPLAPS
70      80      90      100      110      120      130
130      140      150      160      170      180      190
DEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDSYSLSTLTLSKADYEKKHVVYA
|||||
SKSTSGGTAALGCLVKDYFPEPVTVSW-NSGALTSGVHTFPAVLQSS--GLYSLSSVVT-VPSSSLGTQTYI
140      150      160      170      180      190      200
200      210      X
CEVTHQGLSSPVTKSFNRGEC
|||||
CNVNHKPSNTKVDKKVEPKSCDKTHCTCPPELGGPSVFLEPPPKDTLMISRTPEVTCVVVDVSHED
210      220      X      230      240      250      260      270
```

6. US-09-925-179-9 (1-218)
US-08-466-163B-5 Sequence 5, Application US/08466163B

Sequence 5, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 5
LENGTH: 130
TYPE: PRT
ORGANISM: Mus musculus

Initial Score = 7 Optimized Score = 37 Significance = -0.07
Residue Identity = 31% Matches = 45 Mismatches = 75
Gaps = 21 Conservative Substitutions = 0

```
X      10      20      30      40      50      60
DIQLTQSPSSL---SASVGDRTVITCRASQSDYDGDSDYNNWYQKPKG-KAPKLLIYAASYLESGVPSRFS-
|||||
DVQLQESGPGLVKPSQSLSTCTVTGTITS-----DNAWNIRQFPGNKLEWMGYINHSGTTSYNPSLKS
X      10      20      30      40      50      60
70      80      90      100      110      120
-----GSGSGTDFLTITSLQPEDFATYYC-QQSHEDPYTFGQGTKEIKRTVAAPSVFIFPPSDEQLKSGTA
|||||
ISITRDTSKNQFFLQNSVTEDTATYYCAWVAYAMDYWGQTSV----TV--SSAKTTPPSVYPLAR
```


|||||
SHEDPQ
X X

10. US-09-925-179-9 (1-218)
US-08-466-163B-3 Sequence 32, Application US/08466163B

Sequence 32, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 32
LENGTH: 6
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 5 Optimized Score = 5 Significance = -0.13
Residue Identity = 83% Matches = 5 Mismatches = 1
Gaps = 0 Conservative Substitutions = 0

50 60 70 80 90 X 100 110
GKAPKLLIYAASYLESGVPSRFSGSGTGDTLTITSSLPEDFATYYCQSHEDPYTFGGTKVEIKRTVAA
|||||
X X
120 130 140 150
PSVFIFFPSDEQLKSGTASVVCLLNFFYPREAKV

11. US-09-925-179-9 (1-218)
US-08-466-163B-1 Sequence 13, Application US/08466163B

Sequence 13, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 13
LENGTH: 6
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 5 Optimized Score = 5 Significance = -0.13
Residue Identity = 83% Matches = 5 Mismatches = 1
Gaps = 0 Conservative Substitutions = 0

50 60 70 80 90 X 100 110
GKAPKLLIYAASYLESGVPSRFSGSGTGDTLTITSSLPEDFATYYCQSHEDPYTFGGTKVEIKRTVAA

120 130 140 150
PSVFIFFPSDEQLKSGTASVVCLLNFFYPREAKV
12. US-09-925-179-9 (1-218)
US-08-466-163B-2 Sequence 26, Application US/08466163B

Sequence 26, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 26
LENGTH: 4
TYPE: PRT
ORGANISM: Mus musculus

Initial Score = 4 Optimized Score = 4 Significance = -0.16
Residue Identity = 100% Matches = 4 Mismatches = 0
Gaps = 0 Conservative Substitutions = 0

10 20 30 X 40 50 60 70
DIQLTQSPSSLSASVGDRVTITCRASQVDYDGDSDSYMNWYQKPGKAPKLLIYAASYLESGVPSRFSGSGSG
|||||
YDGD
X X

80
TDFTLTITSSLQP

13. US-09-925-179-9 (1-218)
US-08-466-163B-3 Sequence 35, Application US/08466163B

Sequence 35, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 35
LENGTH: 6
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 4 Optimized Score = 4 Significance = -0.16
Residue Identity = 66% Matches = 4 Mismatches = 2
Gaps = 0 Conservative Substitutions = 0

20 30 40 50 60 70 80
SVGDRVITICRASQSDYDGD SYMNYQQKPGKAPKLLIYAASYLESGVPSRFGSGSGTDTLTISLQPE
|||
SRASGK
X X

90 100 110
DFATYYCQOSHEDPYTFGQGTKVEIKRTVAAPSV

14. US-09-925-179-9 (1-218)
US-08-466-163B-2 Sequence 28, Application US/08466163B

Sequence 28, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64

SEQ ID NO 28
LENGTH: 9
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 4 Optimized Score = 4 Significance = -0.16
Residue Identity = 44% Matches = 4 Mismatches = 5
Gaps = 0 Conservative Substitutions = 0

30 40 50 60 70 80 90
RASQSDYDGD SYMNYQQKPGKAPKLLIYAASYLESGVPSRFGSGSGTDTLTISLQPEDFATYYCQQS
|||
KDTLMISRT
X X

100 110 120 130
HEDPYTFGQGTKVEIKRTVAAPSVFIFPPSDEQLKSG

15. US-09-925-179-9 (1-218)
US-08-466-163B-1 Sequence 11, Application US/08466163B

Sequence 11, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07

PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 11
LENGTH: 9
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 4 Optimized Score = 4 Significance = -0.16
Residue Identity = 44% Matches = 4 Mismatches = 5
Gaps = 0 Conservative Substitutions = 0

30 40 50 60 70 80 90
RASQSDYDGD SYMNYQQKPGKAPKLLIYAASYLESGVPSRFGSGSGTDTLTISLQPEDFATYYCQQS
|||
KDTLMISRT
X X

100 110 120 130
HEDPYTFGQGTKVEIKRTVAAPSVFIFPPSDEQLKSG

16. US-09-925-179-9 (1-218)
US-08-466-163B-3 Sequence 33, Application US/08466163B

Sequence 33, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64

SEQ ID NO 33
LENGTH: 11
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 4 Optimized Score = 4 Significance = -0.16
Residue Identity = 36% Matches = 4 Mismatches = 7
Gaps = 0 Conservative Substitutions = 0

20 30 40 50 60 70 80
SVGDRVITICRASQSDYDGD SYMNYQQKPGKAPKLLIYAASYLESGVPSRFGSGSGTDTLTISLQPE
|||
SRASGKPVNHS
X 10

90 100 110 120
DFATYYCQOSHEDPYTFGQGTKVEIKRTVAAPSVFIFPP

17. US-09-925-179-9 (1-218)
US-08-466-163B-1 Sequence 14, Application US/08466163B

Sequence 14, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B

CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 09/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64

SEQ ID NO 14
LENGTH: 11
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 4 Optimized Score = 4 Significance = -0.16
Residue Identity = 36% Matches = 4 Mismatches = 7
Gaps = 0 Conservative Substitutions = 0

20 30 40 50 60 70 80
SVGDRVTITCRASQSDYDGDSDYNNWYQKPGKAPKLLIYAASYLESGVPSRFGSGSGTDTLTISLQPE
|||
SRASGKPVNHS
X 10

90 100 110 120
DFATYYCQSHEDPYTFGGQTKVEIKRTVAAPSVFIFFP

18. US-09-925-179-9 (1-218)
US-08-466-163B-6 Sequence 60, Application US/08466163B

Sequence 60, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64

SEQ ID NO 60
LENGTH: 4
TYPE: PRT
ORGANISM: Artificial sequence
FEATURE:

OTHER INFORMATION: Mutant sequence substituted in place of Ige Fc(epsilon)3 fragment

Initial Score = 3 Optimized Score = 3 Significance = -0.20
Residue Identity = 75% Matches = 3 Mismatches = 1
Gaps = 0 Conservative Substitutions = 0

100 110 120 130 140 150 160
QSHEDPYTFGGQTKVEIKRTVAAPSVFIFFPDSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQE
|||
QPRE
X X

170 180 190
SVTEQDSKDSTYSLSTLTLSKADYKHKVYA

19. US-09-925-179-9 (1-218)
US-08-466-163B-6 Sequence 63, Application US/08466163B

Sequence 63, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64

SEQ ID NO 63
LENGTH: 5
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 3 Optimized Score = 3 Significance = -0.20
Residue Identity = 60% Matches = 3 Mismatches = 2
Gaps = 0 Conservative Substitutions = 0

X 10 20 30 40 50 60
DIQLTQSPSSLSASVGDRVTITCRASQSDYDGDSDYNNWYQKPGKAPKLLIYAASYLESG
|||
SPSQT
X X

20. US-09-925-179-9 (1-218)
US-08-466-163B-5 Sequence 53, Application US/08466163B

Sequence 53, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64

SEQ ID NO 53
LENGTH: 5
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 3 Optimized Score = 3 Significance = -0.20
Residue Identity = 60% Matches = 3 Mismatches = 2
Gaps = 0 Conservative Substitutions = 0

10 X 20 30 40 50 60 70
DIQLTQSPSSLSASVGDRVTITCRASQSDYDGDSDYNNWYQKPGKAPKLLIYAASYLESGVPSRFGSGS
|||
QCRVT
X X

21. US-09-925-179-9 (1-218)

US-08-466-163B-2 Sequence 22, Application US/08466163B

Sequence 22, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
PRIOR FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 22
LENGTH: 5
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 3 Optimized Score = 3 Significance = -0.20
Residue Identity = 60% Matches = 3 Mismatches = 2
Gaps = 0 Conservative Substitutions = 0

DIQLTQSPSSLASVGDRTVITCRASQSVDDYDGDSYMNVYQQKPGKAPKLLIYAASYLESQVPSRFGSG
|||
QCRVT
X X X

22. US-09-925-179-9 (1-218)
US-08-466-163B-6 Sequence 61, Application US/08466163B

Sequence 61, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
PRIOR FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 61
LENGTH: 6
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 3 Optimized Score = 3 Significance = -0.20
Residue Identity = 50% Matches = 3 Mismatches = 3
Gaps = 0 Conservative Substitutions = 0

X 10 20 30 40 50 60
DIQLTQSPSSLASVGDRTVITCRASQSVDDYDGDSYMNVYQQKPGKAPKLLIYAASYLESQ
|||
ASPSQT
X X

23. US-09-925-179-9 (1-218)
US-08-466-163B-4 Sequence 40, Application US/08466163B

Sequence 40, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
PRIOR FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 40
LENGTH: 6
TYPE: PRT
ORGANISM: Artificial sequence

FEATURE:
OTHER INFORMATION: Mutant sequence substituted in place of IGE Fc(epsilon)3 fragment

Initial Score = 3 Optimized Score = 3 Significance = -0.20
Residue Identity = 50% Matches = 3 Mismatches = 3
Gaps = 0 Conservative Substitutions = 0

100 110 120 130 140 150 160
HEDPYTFGGTKVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESV
|||
AEAKAR
X X X

170 180 190 200
TEQDSKDSFYSLSSTLTLSKADYEKHKVYACEVT

24. US-09-925-179-9 (1-218)
US-08-466-163B-3 Sequence 38, Application US/08466163B

Sequence 38, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
PRIOR FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 38
LENGTH: 6
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 3 Optimized Score = 3 Significance = -0.20
Residue Identity = 50% Matches = 3 Mismatches = 3
Gaps = 0 Conservative Substitutions = 0

100 110 120 130 140 150 160

SHEDPYTFGGQTKVEIKRTVAAPSVFIFFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQES
|||
PREQQY
X X

170 180 190 200
VTEQDSKDSYSLSTLTLSKADYEKHKVYACEV

25. US-09-925-179-9 (1-218)
US-08-466-163B-3 Sequence 31, Application US/08466163B

Sequence 31, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 31
LENGTH: 6
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 3 Optimized Score = 3 Significance = -0.20
Residue Identity = 50% Matches = 3 Mismatches = 3
Gaps = 0 Conservative Substitutions = 0

70 80 90 100 110 X 120 130
FSGSGSGTDFLTITSSLPEDFATYYCQSHEDPYTFGGQTKVEIKRTVAAPSVFIFFPPSDEQLKSGTASVV
|||
APSKGT
X X

140 150 160 170
CLLNNFYPREAKVQWKVDNALQSGNSQESVTEQD

26. US-09-925-179-9 (1-218)
US-08-466-163B-2 Sequence 21, Application US/08466163B

Sequence 21, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 21
LENGTH: 6
TYPE: PRT

ORGANISM: Homo sapiens

Initial Score = 3 Optimized Score = 3 Significance = -0.20
Residue Identity = 50% Matches = 3 Mismatches = 3
Gaps = 0 Conservative Substitutions = 0

100 110 120 130 140 X 150 160
SHEDPYTFGGQTKVEIKRTVAAPSVFIFFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQES
|||
PREQQY
X X

170 180 190 200
VTEQDSKDSYSLSTLTLSKADYEKHKVYACEV

27. US-09-925-179-9 (1-218)
US-08-466-163B-1 Sequence 12, Application US/08466163B

Sequence 12, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 12
LENGTH: 6
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 3 Optimized Score = 3 Significance = -0.20
Residue Identity = 50% Matches = 3 Mismatches = 3
Gaps = 0 Conservative Substitutions = 0

70 80 90 100 110 X 120 130
FSGSGSGTDFLTITSSLPEDFATYYCQSHEDPYTFGGQTKVEIKRTVAAPSVFIFFPPSDEQLKSGTASVV
|||
APSKGT
X X

140 150 160 170
CLLNNFYPREAKVQWKVDNALQSGNSQESVTEQD

28. US-09-925-179-9 (1-218)
US-08-466-163B-5 Sequence 59, Application US/08466163B

Sequence 59, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495

PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 59
LENGTH: 4
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 2 Optimized Score = 3 Significance = -0.23
Residue Identity = 75% Matches = 3 Mismatches = 1
Gaps = 0 Conservative Substitutions = 0

100 110 120 130 140 150 160
SHEDPYTFGQGTKVEIKRTVAAPSVFIFPPSDEQLKSGTASVCLLNNFYPREAKVQWKVDNALQSGNSQES
PRAA
X X

170 180 190
VTEQDSKDYSLSTLSKADYEKHKVYAC

29. US-09-925-179-9 (1-218)
US-08-466-163B-5 Sequence 56, Application US/08466163B

Sequence 56, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 56
LENGTH: 4
TYPE: PRT
ORGANISM: Artificial sequence
FEATURE:
OTHER INFORMATION: Mutant sequence substituted in place of IgE Fc(epsilon)3 fragment

Initial Score = 2 Optimized Score = 2 Significance = -0.23
Residue Identity = 50% Matches = 2 Mismatches = 2
Gaps = 0 Conservative Substitutions = 0

70 80 90 100 110 120 130
FSGSGGTDFTLTISSLPEDFATYYCQSHEDPYTFGQGTKVEIKRTVAAPSVFIFPPSDEQLKSGTASVV
APIE
X X

140 150 160
CLLNNFYPREAKVQWKVDNALQSGNSQESVTE

30. US-09-925-179-9 (1-218)
US-08-466-163B-5 Sequence 55, Application US/08466163B

Sequence 55, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.

TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 55
LENGTH: 4
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 2 Optimized Score = 2 Significance = -0.23
Residue Identity = 50% Matches = 2 Mismatches = 2
Gaps = 0 Conservative Substitutions = 0

10 20 30 40 50 60 70
DIQLTQSPSSLSASVGDRTVITCRASQSDYDGDSDYNNWYQQKPGKAPKLLIYAASYLESGVPSRFRSGSGS
RALM
X X

TDFTL

31. US-09-925-179-9 (1-218)
US-08-466-163B-5 Sequence 52, Application US/08466163B

Sequence 52, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 52
LENGTH: 4
TYPE: PRT
ORGANISM: Artificial sequence
FEATURE:
OTHER INFORMATION: Mutant sequence substituted in place of IgE Fc(epsilon)3 fragment

Initial Score = 2 Optimized Score = 2 Significance = -0.23
Residue Identity = 50% Matches = 2 Mismatches = 2
Gaps = 0 Conservative Substitutions = 0

10 20 30 X 40 50 60 70
DIQLTQSPSSLSASVGDRTVITCRASQSDYDGDSDYNNWYQQKPGKAPKLLIYAASYLESGVPSRFRSGSGS
DGKE
X X

80
TDFTLTISSLPQE

32. US-09-925-179-9 (1-218)
US-08-466-163B-5 Sequence 51, Application US/08466163B

Sequence 51, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 51
LENGTH: 4
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 2 Optimized Score = 2 Significance = -0.23
Residue Identity = 50% Matches = 2 Mismatches = 2
Gaps = 0 Conservative Substitutions = 0

170 180 190 200 210 X X
ESVTEQDSKDYSLSTLTLSKADYKHKVYACEVTHQGLSPVTKSFNRGEC
||
EGET
X X

33. US-09-925-179-9 (1-218)
US-08-466-163B-4 Sequence 48, Application US/08466163B

Sequence 48, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 48
LENGTH: 4
TYPE: PRT
ORGANISM: Artificial sequence
FEATURE:
OTHER INFORMATION: Mutant sequence substituted in place of IgE Fc(epsilon)3 fragment

Initial Score = 2 Optimized Score = 2 Significance = -0.23
Residue Identity = 50% Matches = 2 Mismatches = 2
Gaps = 0 Conservative Substitutions = 0

70 80 90 100 110 X X 120 130
PSRFGSGSGTDFLTITSLQPEDFATYYCQSHEDPYTFGQGTKVEIKRTVAAPSVFIFPPSDEQLKSGTA
||

AGAA
X X

140 150 160
SVVCLLNFFYBREAKVQWKVDNALQSGNSQES

34. US-09-925-179-9 (1-218)
US-08-466-163B-4 Sequence 47, Application US/08466163B

Sequence 47, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 47
LENGTH: 4
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 2 Optimized Score = 2 Significance = -0.23
Residue Identity = 50% Matches = 2 Mismatches = 2
Gaps = 0 Conservative Substitutions = 0

170 180 190 200 210 X X
ESVTEQDSKDYSLSTLTLSKADYKHKVYACEVTHQGLSPVTKSFNRGEC
||
EGET
X X

35. US-09-925-179-9 (1-218)
US-08-466-163B-3 Sequence 30, Application US/08466163B

Sequence 30, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 30
LENGTH: 4
TYPE: PRT
ORGANISM: Artificial sequence
FEATURE:
OTHER INFORMATION: Mutant IgE Fc(epsilon)3 sequence fragment

Initial Score = 2 Optimized Score = 2 Significance = -0.23

Residue Identity = 50% Matches = 2 Mismatches = 2
Gaps = 0 Conservative Substitutions = 0

120 130 140 150 160 170 X 180 190
FIFPPDEQLKSGTASVAVCLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDSTYSLSSTLTLSKADYE
||
QDLH
X X

200 210
KHKVYACEVTHQGLSSPVTKSFNRGEC

36. US-09-925-179-9 (1-218)
US-08-466-163B-1 Sequence 19, Application US/08466163B

Sequence 19, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
PRIOR FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 19
LENGTH: 4
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 2 Optimized Score = 2 Significance = -0.23
Residue Identity = 50% Matches = 2 Mismatches = 2
Gaps = 0 Conservative Substitutions = 0

70 80 90 100 110 X 120 130
FSGSGGTDTFTLTISLQPEDFATYCCQSHEDPYTFGQGTKEIKRTVAAPSVFIFPPSDEQLKSGTASVV
||
APIE
X X

140 150 160
CLLNNFYPREAKVQWKVDNALQSGNSQESVTE

37. US-09-925-179-9 (1-218)
US-08-466-163B-1 Sequence 18, Application US/08466163B

Sequence 18, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
PRIOR FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14

NUMBER OF SEQ ID NOS: 64
SEQ ID NO 18
LENGTH: 4
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 2 Optimized Score = 2 Significance = -0.23
Residue Identity = 50% Matches = 2 Mismatches = 2
Gaps = 0 Conservative Substitutions = 0

10 20 X 30 40 50 60 70
DIQLTQSPSSLASVGDVRTITCRASQSDYDGDSDYNNWYQKPGKAPKLLIYAASYLESVPSRFGSGSG
||
RALM
X X

TDFTL

38. US-09-925-179-9 (1-218)
US-08-466-163B-6 Sequence 64, Application US/08466163B

Sequence 64, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
PRIOR FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 64
LENGTH: 5
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 2 Optimized Score = 2 Significance = -0.23
Residue Identity = 40% Matches = 2 Mismatches = 3
Gaps = 0 Conservative Substitutions = 0

70 80 90 100 110 X 120 130
FSGSGGTDTFTLTISLQPEDFATYCCQSHEDPYTFGQGTKEIKRTVAAPSVFIFPPSDEQLKSGTASVV
||
APAAA
X X

140 150 160 170
CLLNNFYPREAKVQWKVDNALQSGNSQESVTEQ

39. US-09-925-179-9 (1-218)
US-08-466-163B-5 Sequence 54, Application US/08466163B

Sequence 54, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
PRIOR FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617

PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 54
LENGTH: 5
TYPE: PRT
ORGANISM: Artificial sequence
FEATURE:
OTHER INFORMATION: Mutant sequence substituted in place of IgE Fc(epsilon)3 fragment

Initial Score = 2 Optimized Score = 3 Significance = -0.23
Residue Identity = 60% Matches = 3 Mismatches = 2
Gaps = 0 Conservative Substitutions = 0
150 160 170 180 190 200 210
EAKVQWKVDNALQSGNSQESVTEQDSKDYESTLSSTLTLSKADYEKHKVYACEVTHQGLSPVTKSFNRGEC
|||
ACAVA
X X

40. US-09-925-179-9 (1-218)
US-08-466-163B-2 Sequence 23, Application US/08466163B

Sequence 23, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 23
LENGTH: 5
TYPE: PRT
ORGANISM: Artificial sequence
FEATURE:
OTHER INFORMATION: Modified IGG1-derived sequence

Initial Score = 2 Optimized Score = 3 Significance = -0.23
Residue Identity = 60% Matches = 3 Mismatches = 2
Gaps = 0 Conservative Substitutions = 0
150 160 170 180 190 200 210
EAKVQWKVDNALQSGNSQESVTEQDSKDYESTLSSTLTLSKADYEKHKVYACEVTHQGLSPVTKSFNRGEC
|||
ACAVA
X X

41. US-09-925-179-9 (1-218)
US-08-466-163B-4 Sequence 44, Application US/08466163B

Sequence 44, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.

TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 44
LENGTH: 6
TYPE: PRT
ORGANISM: Artificial sequence
FEATURE:
OTHER INFORMATION: Mutant sequence substituted in place of IgE Fc(epsilon)3 fragment

Initial Score = 2 Optimized Score = 2 Significance = -0.23
Residue Identity = 33% Matches = 2 Mismatches = 4
Gaps = 0 Conservative Substitutions = 0
70 80 90 100 110 120 130
RFGSGSGTDFTLTITISLQPEDFATYYCQQSHEDPYTFGGTKVEIKRTVAAPSVFIFPPPSDEQLKSGTASV
|||
AAEAQA
X X
140 150 160 170
VCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQ

42. US-09-925-179-9 (1-218)
US-08-466-163B-4 Sequence 43, Application US/08466163B

Sequence 43, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 43
LENGTH: 6
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 2 Optimized Score = 2 Significance = -0.23
Residue Identity = 33% Matches = 2 Mismatches = 4
Gaps = 0 Conservative Substitutions = 0
140 150 160 170 180 190 200 210
LLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDYESTLSSTLTLSKADYEKHKVYACEVTHQGLSPVT
|||
KEEKQR
X X
KSFNRGEC

140 150 160 170 180 190 X 200 210
LLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDSYSLSTLTLSKADYEKKHKVYACEVTHQGLSSPVT
||
KEEKQR
X X

KSFNRGEC

45. US-09-925-179-9 (1-218)
US-08-466-163B-3 Sequence 39, Application US/08466163B

Sequence 39, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 39
LENGTH: 6
TYPE: PRT
ORGANISM: Homo sapeins

Initial Score = 2 Optimized Score = 2 Significance = -0.23
Residue Identity = 33% Matches = 2 Mismatches = 4
Gaps = 0 Conservative Substitutions = 0

140 150 160 170 180 190 X 200 210
LLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDSYSLSTLTLSKADYEKKHKVYACEVTHQGLSSPVT
||
KEEKQR
X X

KSFNRGEC

46. US-09-925-179-9 (1-218)
US-08-466-163B-3 Sequence 37, Application US/08466163B

Sequence 37, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 37
LENGTH: 6

43. US-09-925-179-9 (1-218)
US-08-466-163B-4 Sequence 42, Application US/08466163B

Sequence 42, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 42
LENGTH: 6
TYPE: PRT
ORGANISM: Artificial sequence
FEATURE:
OTHER INFORMATION: Mutant sequence substituted in place of IgE Fc(epsilon)3 fragment

Initial Score = 2 Optimized Score = 2 Significance = -0.23
Residue Identity = 33% Matches = 2 Mismatches = 4
Gaps = 0 Conservative Substitutions = 0

140 150 160 170 180 190 X 200
VCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDSYSLSTLTLSKADYEKKHKVYACEVTHQGLSSP
||
KAEAAQ
X X

210
VTKSFNRGEC

44. US-09-925-179-9 (1-218)
US-08-466-163B-4 Sequence 41, Application US/08466163B

Sequence 41, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 41
LENGTH: 6
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 2 Optimized Score = 2 Significance = -0.23
Residue Identity = 33% Matches = 2 Mismatches = 4
Gaps = 0 Conservative Substitutions = 0

TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 2 Optimized Score = 2 Significance = -0.23
Residue Identity = 33% Matches = 2 Mismatches = 4
Gaps = 0 Conservative Substitutions = 0

140 150 160 170 180 190 X 200 210
LLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDYESTLTLISKADYKHKVYACEVTHQGLSSPVT
||
KEEKOR
X X

KSFNRGEC

47. US-09-925-179-9 (1-218)
US-08-466-163B-3 Sequence 36, Application US/08466163B

Sequence 36, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 36
LENGTH: 6
TYPE: PRT
ORGANISM: Artificial sequence
FEATURE:
OTHER INFORMATION: Mutant Ige Fc(epsilon)3 sequence fragment

Initial Score = 2 Optimized Score = 2 Significance = -0.23
Residue Identity = 33% Matches = 2 Mismatches = 4
Gaps = 0 Conservative Substitutions = 0

70 80 90 100 110 X 120 130
PSRFGSGSGTDFTLTISSLPQEDFATYYCQSHEDPYTFGQGTKVEIKRTVAAPSVFIFPPPSDEQLKSGTA
||
AAAAGA
X X

140 150 160
SVVCLLNNFYPREAKVQWKVDNALQSGNSQESVT

48. US-09-925-179-9 (1-218)
US-08-466-163B-2 Sequence 20, Application US/08466163B

Sequence 20, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15

PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 20
LENGTH: 6
TYPE: PRT
ORGANISM: Homo sapiens

Initial Score = 2 Optimized Score = 2 Significance = -0.23
Residue Identity = 33% Matches = 2 Mismatches = 4
Gaps = 0 Conservative Substitutions = 0

140 150 160 170 180 190 X 200 210
LLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDYESTLTLISKADYKHKVYACEVTHQGLSSPVT
||
KEEKOR
X X

KSFNRGEC

49. US-09-925-179-9 (1-218)
US-08-466-163B-5 Sequence 58, Application US/08466163B

Sequence 58, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 58
LENGTH: 8
TYPE: PRT
ORGANISM: Artificial sequence
FEATURE:
OTHER INFORMATION: Mutant sequence substituted in place of Ige Fc(epsilon)5 fragment

Initial Score = 2 Optimized Score = 2 Significance = -0.23
Residue Identity = 25% Matches = 2 Mismatches = 6
Gaps = 0 Conservative Substitutions = 0

70 80 90 100 110 X 120 130
SRFSGSGSGTDFTLTISSLPQEDFATYYCQSHEDPYTFGQGTKVEIKRTVAAPSVFIFPPPSDEQLKSGTAS
||
AAAWLAAA
X X

140 150 160 170
VVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQD

50. US-09-925-179-9 (1-218)
US-08-466-163B-5 Sequence 57, Application US/08466163B

Sequence 57, Application US/08466163B
Patent No. 6329509

| | | | | | | | | |
|------------------|---|-----|----------------------------|---|---|--------------|---|-------|
| Initial Score | = | 2 | Optimized Score | = | 2 | Significance | = | -0.23 |
| Residue Identity | = | 25% | Matches | = | 2 | Mismatches | = | 6 |
| Gaps | = | 0 | Conservative Substitutions | = | 0 | | = | 0 |

DIQLTQSPSSLSASVGDRVTITCRASQSDYDGDSDYMNWYQQKPGKAPKLLIYAASYLESGVPSRFSGSGSG
80 90
TDFTITLSSLOPEDFATVYCOOSHEDP
↓
QKHWLSDR
X X

54. US-09-925-179-9 (1-218)
US-08-466-163B-1 Sequence 10, Application US/08466163B

Sequence 10, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardiou, Paula M.
APPLICANT: presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 10
LENGTH: 8
TYPE: PRT
ORGANISM: Homo sapiens

| | | | | | | | | |
|------------------|---|-----|----------------------------|---|---|--------------|---|-------|
| Initial Score | = | 2 | Optimized Score | = | 2 | Significance | = | -0.23 |
| Residue Identity | = | 25% | Matches | = | 2 | Mismatches | = | 6 |
| Gaps | = | 0 | Conservative Substitutions | = | 0 | | | |

SCSGSGDTFTLTSSLPEDFATYCCQSHEDPYTFGQGTKEIKRTVAAPSVFI¹¹⁰FPSPDEQLKSGTASVWC¹³⁰

| | | | |
|--------------------------------------|-----|-----|-----|
| 140 | 150 | 160 | 170 |
| LLNNFYBREAKVOWKVDNALOSGNSOESVTEQDSKD | | | |

55. US-09-925-179-9 (1-218)
US-08-466-163B-5 sequence 50, Application US/08466163B

Sequence 50, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 50

SEO ID NO 50

```

LENGTH: 9
TYPE: PRT
ORGANISM: Artificial sequence
FEATURE:
OTHER INFORMATION: Mutant sequence substituted in place of IgE Fc(epsilon)3 fragment

Initial Score      = 2    Optimized Score = 2    Significance = -0.23
Residue Identity  = 22%  Matches      = 2    Mismatches = 7
Gaps              = 0    Conservative Substitutions = 0

```

160 170 180 190 200 X 210
 WKVDNALQSGNSQESVTEQDSKDSTYSLSSTLTLSKADYEKKHKVYACEVTHQGLSSPYTKSFENRGE

56. US-09-925-179-9 (1-218)
US-08-466-163B-4 Sequence 49, Application US/08466163B

Sequence 49, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64

PRIOR FILING DATE: 1992
 NUMBER OF SEQ ID NOS: 64
 SEQ ID NO 49
 LENGTH: 9
 TYPE: PRT
 ORGANISM: Homo sapiens

| | | | | | | | | |
|------------------|---|-----|----------------------------|---|---|--------------|---|-------|
| Initial Score | = | 2 | Optimized Score | = | 3 | Significance | = | -0.23 |
| Residue Identity | = | 33% | Matches | = | 3 | Mismatches | = | 6 |
| Gaps | = | 0 | Conservative Substitutions | = | 0 | | = | 0 |

160 170 180 190 200 210 X
SGNSQESVTEQDSKDSYSLSSLTLSKADYEKHKVYACEVTHQGLSPVTKSFNRGEC
|||
TRDWIEGET
X X X

57. US-09-925-179-9 (1-218)
US-08-466-163B-4 Sequence 46, Application US/08466163B

Sequence 46, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768

PRIOR FILING DATE: 1992-03-01
PRIOR APPLICATION NUMBER: US 07/744,768

PRIOR FILING DATE: 1991-08-14
 NUMBER OF SEQ ID NOS: 64
 SEQ ID NO 46
 LENGTH: 10
 TYPE: PRT
 ORGANISM: Artificial sequence
 FEATURE:
 OTHER INFORMATION: Mutant sequence substituted in place of Ige Fc(epsilon)3 fragment

Initial Score = 2 Optimized Score = 2 Significance = -0.23
 Residue Identity = 20% Matches = 2 Mismatches = 8
 Gaps = 0 Conservative Substitutions = 0

QWKVDNALQSGNSQESVTEQDSKDSYLSSTLTLSKADYKHKVYACEVTHQGLSSPVTKSFNRGEC
 160 170 180 190 200 X
 LHQDWLDGKE
 X 10

58. US-09-925-179-9 (1-218)
 US-08-466-163B-4 Sequence 45, Application US/08466163B

Sequence 45, Application US/08466163B

Patent No. 6329509
 GENERAL INFORMATION:
 APPLICANT: Jardieu, Paula M.
 TITLE OF INVENTION: Immunoglobulin Variants
 FILE REFERENCE: P0718P2C1D1
 CURRENT APPLICATION NUMBER: US/08/466,163B
 PRIOR FILING DATE: 1995-06-06
 PRIOR FILING DATE: 1995-03-15
 PRIOR APPLICATION NUMBER: US 08/185,899
 PRIOR FILING DATE: 1994-01-26
 PRIOR APPLICATION NUMBER: US 07/879,495
 PRIOR FILING DATE: 1992-05-07
 PRIOR APPLICATION NUMBER: US 07/744,768
 PRIOR FILING DATE: 1991-08-14
 NUMBER OF SEQ ID NOS: 64
 SEQ ID NO 45
 LENGTH: 10
 TYPE: PRT
 ORGANISM: Homo sapiens

Initial Score = 2 Optimized Score = 3 Significance = -0.23
 Residue Identity = 30% Matches = 3 Mismatches = 7
 Gaps = 0 Conservative Substitutions = 0

ASYLESGVPSRFSGSGTDFLTITISSLPQEDFATYCCQSHEDPYTFGQTKVEIKRTVAAPSVFIFFPPSD
 60 70 80 90 100 110 120 X
 GTRDWIEGET
 X 10

130 140 150 160
 BQLKSGTASVVCLNNFYPREAKVQWKVDNALQSGNSQ

59. US-09-925-179-9 (1-218)
 US-08-466-163B-1 Sequence 17, Application US/08466163B

Sequence 17, Application US/08466163B

Patent No. 6329509
 GENERAL INFORMATION:
 APPLICANT: Jardieu, Paula M.
 TITLE OF INVENTION: Immunoglobulin Variants
 FILE REFERENCE: P0718P2C1D1
 CURRENT APPLICATION NUMBER: US/08/466,163B
 PRIOR FILING DATE: 1995-06-06
 PRIOR APPLICATION NUMBER: US 08/405,617

PRIOR FILING DATE: 1995-03-15
 PRIOR APPLICATION NUMBER: US 08/185,899
 PRIOR FILING DATE: 1994-01-26
 PRIOR APPLICATION NUMBER: US 07/879,495
 PRIOR FILING DATE: 1992-05-07
 PRIOR APPLICATION NUMBER: US 07/744,768
 PRIOR FILING DATE: 1991-08-14
 NUMBER OF SEQ ID NOS: 64
 SEQ ID NO 17
 LENGTH: 10
 TYPE: PRT
 ORGANISM: Homo sapiens

Initial Score = 2 Optimized Score = 2 Significance = -0.23
 Residue Identity = 20% Matches = 2 Mismatches = 8
 Gaps = 0 Conservative Substitutions = 0

QWKVDNALQSGNSQESVTEQDSKDSYLSSTLTLSKADYKHKVYACEVTHQGLSSPVTKSFNRGEC
 160 170 180 190 200 X
 LHQDWLDGKE
 X 10

60. US-09-925-179-9 (1-218)
 US-08-466-163B-1 Sequence 16, Application US/08466163B

Sequence 16, Application US/08466163B
 Patent No. 6329509
 GENERAL INFORMATION:
 APPLICANT: Jardieu, Paula M.
 TITLE OF INVENTION: Immunoglobulin Variants
 FILE REFERENCE: P0718P2C1D1
 CURRENT APPLICATION NUMBER: US/08/466,163B
 PRIOR FILING DATE: 1995-06-06
 PRIOR FILING DATE: 1995-03-15
 PRIOR APPLICATION NUMBER: US 08/185,899
 PRIOR FILING DATE: 1994-01-26
 PRIOR APPLICATION NUMBER: US 07/879,495
 PRIOR FILING DATE: 1992-05-07
 PRIOR APPLICATION NUMBER: US 07/744,768
 PRIOR FILING DATE: 1991-08-14
 NUMBER OF SEQ ID NOS: 64
 SEQ ID NO 16
 LENGTH: 10
 TYPE: PRT
 ORGANISM: Homo sapiens

Initial Score = 2 Optimized Score = 3 Significance = -0.23
 Residue Identity = 30% Matches = 3 Mismatches = 7
 Gaps = 0 Conservative Substitutions = 0

ASYLESGVPSRFSGSGTDFLTITISSLPQEDFATYCCQSHEDPYTFGQTKVEIKRTVAAPSVFIFFPPSD
 60 70 80 90 100 110 120 X
 GTRDWIEGET
 X 10

130 140 150 160
 BQLKSGTASVVCLNNFYPREAKVQWKVDNALQSGNSQ

61. US-09-925-179-9 (1-218)
 US-08-466-163B-3 Sequence 34, Application US/08466163B

Sequence 34, Application US/08466163B
 Patent No. 6329509
 GENERAL INFORMATION:
 APPLICANT: Jardieu, Paula M.
 TITLE OF INVENTION: Immunoglobulin Variants

FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 34
LENGTH: 11
TYPE: PRT
ORGANISM: Homo sapiens

| | | | | | | | | |
|------------------|---|-----|----------------------------|---|---|--------------|---|-------|
| Initial Score | = | 2 | Optimized Score | = | 3 | Significance | = | -0.23 |
| Residue Identity | = | 33% | Matches | = | 4 | Mismatches | = | 7 |
| Gaps | = | 1 | Conservative Substitutions | = | | | = | 0 |

110 120 130 140 150 X 160 X 170
GQGTKVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKD
|||
YVD-GVQVHNAK
X 10

180 190 200 210
STYLSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFN

62. US-09-925-179-9 (1-218)
US-08-466-163B-1 Sequence 15, Application US/08466163B

Sequence 15, Application US/08466163B
Patent No. 6329509
GENERAL INFORMATION:
APPLICANT: Jardieu, Paula M.
APPLICANT: Presta, Leonard G.
TITLE OF INVENTION: Immunoglobulin Variants
FILE REFERENCE: P0718P2C1D1
CURRENT APPLICATION NUMBER: US/08/466,163B
CURRENT FILING DATE: 1995-06-06
PRIOR APPLICATION NUMBER: US 08/405,617
PRIOR FILING DATE: 1995-03-15
PRIOR APPLICATION NUMBER: US 08/185,899
PRIOR FILING DATE: 1994-01-26
PRIOR APPLICATION NUMBER: US 07/879,495
PRIOR FILING DATE: 1992-05-07
PRIOR APPLICATION NUMBER: US 07/744,768
PRIOR FILING DATE: 1991-08-14
NUMBER OF SEQ ID NOS: 64
SEQ ID NO 15
LENGTH: 11
TYPE: PRT
ORGANISM: Homo sapiens

| | | | | | | | | |
|------------------|---|-----|----------------------------|---|---|--------------|---|-------|
| Initial Score | = | 2 | Optimized Score | = | 3 | Significance | = | -0.23 |
| Residue Identity | = | 33% | Matches | = | 4 | Mismatches | = | 7 |
| Gaps | = | 1 | Conservative Substitutions | = | | | = | 0 |

110 120 130 140 150 X 160 X 170
GQGTKVEIKRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKD
|||
YVD-GVQVHNAK
X 10

180 190 200 210
STYLSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFN